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## Using Systemic Functional Linguistics to Inform a Language Pedagogy in a Middle School English Classroom a Case Study

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USING SYSTEMIC FUNCTIONAL LINGUISTICS TO INFORM A LANGUAGE  
PEDAGOGY IN A MIDDLE SCHOOL ENGLISH CLASSROOM

A CASE STUDY

A Dissertation Presented

by

HOLLY INNES GRAHAM

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF EDUCATION

May 2015

College of Education



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## **DEDICATION**

This dissertation is dedicated to the hundreds of middle school students who have given me privileged access to their literate selves during such vulnerable times in their lives.

## ACKNOWLEDGMENTS

I would like to begin by thanking my editor, my mother, Judith Graham for reading this entire manuscript two times and providing invaluable feedback and edits each time. I do not know of many mothers who sit for hours during multiple holidays to read and edit dissertations. I share this accomplishment with you, Mom.

I would also like to thank my friend, Anna Lawrence, who has suffered parts of document with me in the darkest hours, reading it with patience and always with a smile.

Thank you to the Northtown Public Schools for giving me the opportunity to conduct teacher-research during my first year of employment. This level of trust speaks volumes of Northtown's commitment to educational progress. To my students in the Northtown and the Newton Public Schools, you have afforded me a dream career. There is no other word for it, I have loved every minute of being your teacher. Thank you.

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with much gratitude I thank them for allowing me to be a member of their granddaughter's and daughter's and lives. I also thank Kia and Tally, two of the smartest students I have ever known. Kia and Tally, at such a vulnerable age and time of life, you allowed me such significant access to your lives. Thank you.

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With gratitude, Dr. Graham

ABSTRACT

USING SYSTEMIC FUNCTIONAL LINGUISTICS TO INFORM A LANGUAGE  
PEDAGOGY IN A MIDDLE SCHOOL ENGLISH CLASSROOM. A CASE STUDY.

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This qualitative case study analyzes how a middle school teacher used the tools of systemic functional linguistics (SFL) and genre based pedagogy (GBP) to support linguistically and culturally diverse students in analyzing informational texts critically in the context of curricular and school reforms in the United States. Using a combination of ethnographic case study methods (Dyson, 1993; Davies, 1999; Merriam, 2005; Dyson & Genishi, 2005) and critical discourse analysis (Eggins, 1999; Fairclough, 1995) the teacher collected an extensive corpus of diverse data over a school year. Focused data collection consistent with case study methods included instructional materials, paper and electronic copies of students' texts over time, videotapes and transcripts of classroom interactions and transcripts of interviews with the teacher and focal students. Data analysis included tracking the ways students discussed language and genre features of instructed informational texts, as well as using discourse analysis to analyze the specific genre register features included in students' written products and making revisions to

their expository texts. The findings indicate when introduced to an SFL metalanguage, students in this English class were able to discuss the language of school on a more functional level, shifting from their more structural conceptions of texts demonstrated at the beginning of the school year. In addition, students co-constructed a metalanguage for their own needs as writers, naming language systems in ways that made sense to them as developing writers. Finally, the student writers did gain more control in the academic language employed in writing, best understood with the tools of discourse analysis. The implications of this study suggest expansive language resources used to discuss academic literacy act as tools for students in learning to read and write instructional texts.

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## CHAPTER 1

### CONTEXTUALIZING STANDARDIZED LITERACIES

#### Introduction

It was the beginning of my ninth year teaching middle school English, but my first year teaching at Northtown Middle School. After my classroom routines were established, I began the year by assigning the school's mandated baseline writing assessment. During the new teacher orientation, prior to the start of the school year, I learned that a priority in the Northtown Public Schools was raising the test score averages on the annual state standardized tests, particularly the writing scores. This goal was to be addressed in the middle school by assigning more writing and measuring student writing growth throughout the year on a standard rubric. Before any instruction was to begin in English classrooms, all students throughout the middle school were to respond to the same question in a strict paragraph format. This writing assignment, called the "open response," was believed by school administrators to reflect the high stakes testing assessment genre on the annual state tests. The baseline open response served as information for middle school English teachers to understand each of their new student's writing skills at the start of the year, skills that should then be addressed in instruction and continuously measured throughout the year. Using this writing sample, teachers were to consistently assess students' open response writing skills and score the paragraphs on a standardized writing rubric with a list of strict writing goals. Each goal was rated on a scale of 1(lowest) through 4 (highest).



I learned quickly that the baseline open response writing assessment was not new to the school. From the reactions of my students when I assigned this writing, it was obvious they had to answer an open response at the start of every school year. It was also apparent that the open response questions were a strictly defined type of writing. First, students must read an assigned excerpt of fiction from a young adult novel, or complete a mathematical word problem and analyze a graph, or review a scientific text with multiple text elements: bar graphs, images, data displays and images. Then, in one paragraph only, they must respond to an assigned prompt or question focused on some aspect of the text(s) the exact same way, regardless of the subject area. In an open response paragraph, students must pose an argument in a topic sentence that restates the prompt, support their position with exactly three specific details from the text, and then close the paragraph with a statement that “pushes the reader beyond the paragraph” (see Figure 1). However, my students explained to me that most teachers told them that for 3 points (opposed to 4), they could just conclude an open response with a restatement of the first sentence, which was “good enough.” These paragraph elements were all scored on the rubric and each student was assigned a numerical writing score out of 24 points. Figure 1 is the rubric used school wide to score baseline open responses.



Open responses were not something students wrote only at the beginning of the year either. At one faculty meeting two months into the school year, I recorded in my field notes that a school administrator stated “I want one open response assigned per week, per classroom, using the school’s rubric” (11/2011). It was routinely mentioned in meetings, encouraged in all curriculum planning and rationalized as a necessary cross-curricular writing skill. School-wide writing instruction was to specifically address open response writing until the annual test scores began to approach the state average. With constant practice and measurement on open response writing responses, the administration’s belief was that scores would improve. Northtown’s writing scores were lower than middle schools with similar demographics and there was pressure from the state’s Department of Education to demonstrate the school was addressing this issue with data driven practice.

The baseline open response prompt at the start of this school year required students to make an argument about their choice of a summer fiction book. Students were to state if their selected summer novel deserved a place on the school library’s newest book shelf. They had as much preparation time as needed in one English class (51 minutes), with the option to take the assignment home to complete it if class time were not enough. Technology was not allowed; outlines, templates and drafts were to be written by hand and submitted with the final draft. These guidelines were in place as a way of simulating test-taking circumstances.

**OPEN RESPONSE PROMPT:**

The English department is putting together a collection of books that are superior books for middle school students to read, so we can build a new library bookshelf. Consider the book you have read for your summer reading project. Is it a good book for middle school students to read? Should the school purchase it for our new bookshelf? Why or why not?

Respond with an open response format. Support your answer with specific examples from the text. Reminder: Your reader most likely has not read this book, so include details to help your reader understand your argument.

Figure 2: Fall 2011 Baseline Open Response Writing Prompt

Of note, there was no authentic outcome either; the English department did not collect a list of books based on student suggestions, and there was no plan to make a new bookshelf. It was merely a scored writing assessment used so that students could then participate in a follow-up five minute writing conference with their teachers to discuss their baseline open response paragraph and their score on the rubric. At the time of this study, I taught five English classes daily, totaling 91 students. I needed to conduct the writing conferences quickly during class time and generate a list of students with significantly low scores on the rubric, as was requested by my administration. I recorded in my field notes that, for the most part, all students handed in the open response paragraphs either the day I assigned it or the following day. It was evident to me while scoring that most of students had attempted to follow the school's strict open response formula. I met with most students within a week's time. At the completion of the writing conferences, I was able to gather data from the rubrics and generate categories of weak open response writing skills evident in the samples from all of my classes. Students with

overall weak open response scores were to receive additional instructional interventions, documented into an individual student writing plan which would be shared with school administration.

Two of my seventh grade English students, Tally and Kia<sup>1</sup>, handed in their open response paragraphs with some unusual fanfare. Tally was eager for my feedback and signed up for her post-writing meeting immediately to discuss her paragraph on her summer reading book Just Listen. Kia, on the other hand, was anxious that her open response would count against her and repeatedly told me that she was a horrible writer and she would redo the paragraph multiple times if I requested it. I noticed that she had not titled her open response, nor did she have an outline or any planning. I reassured her that the paragraph did not count towards her grade and explained that these writing samples were simply intended to help schools and teachers learn more about student writing. I encouraged Kia to sign up for her writing conference, which she did reluctantly.

### Tally

Figure 3 is a copy of Tally's original open response. I have transcribed it in Figure 3a. I then discuss her open response in terms of grade level and rubric writing expectations.

---

<sup>1</sup> Pseudonyms

"Just Listen" is a GREAT middle schoolers to read because it has to do with some issues Middle Schoolers May deal with as a younger sibling. It is 150 ~~NOT~~ NOT a very good book for Middle Schoolers because ~~some~~ Some of the issues are too mature. One example of it being too mature is because Angel is hiding a secret and it's that she was raped. You don't find out until the end of the book because she keeps it a secret. Another example is that Whitney deals with being an anorexic and goes to therapy. A reason it's good is ~~that~~ that because of the unfortunate events it makes you watch the people you hang out with. Also that it teaches what a true friend does. A last one is that it makes you more conscious of your choices. These are my reasons for say "maybe" but maybe it's a better choice for 8<sup>th</sup> graders or freshmen.

Figure 3: Tally's Original Open Response

*"Just Listen", is a ~~good~~ GREAT book four middle schoolers to read because it has to do with some issues Middle schoolers May deal with as a younger sibling. It is also NOT a very good book for Middle Schoolers because [illegible] some of the issues are too mature. One example of it being to mature is because Anabel is hiding a secret and its that she was raped. You don't find out until the end of the book because she keeps it a secret. Another example is that Whitney deals with being an anerexic and goes to therapy. A reason it's good is [illegible] that because of the unfortunate events it makes you watch the people you hang out with. Also that it teaches what a true friend does. A last one is that it makes you more concious of your choices. These are my reasons for*

Figure 3a: Transcription of Tally's Open Response

Tally's paragraph<sup>2</sup> begins with a rather narrow argument; her book *"Just Listen"* is a GREAT book for middle schoolers to read because it has to do with some issues Middle schoolers May deal with as a younger sibling. This argument does not reflect the language of the prompt, nor does it address whether the book should be added to the library's book collection. Rather, Tally sets a reader up to believe that she will be explaining a younger sibling's connection to the book's value. She changes topics with various arguments throughout the paragraph, substantiating each with a few reasons for her positions. She concludes her open response paragraph by stating *These are my reasons for saying "maybe" but maybe its a more better choice for 8th graders or freshman* with a more central position announced for the first time in the paragraph. This line is also the first example of a credible argument, suggesting that a certain age group may be better prepared to read this book, in particular, students who are older than she is, such as eighth graders or freshman.

---

<sup>2</sup> Reflecting APA conventions, Tally's text is in italics; our conversation is in "quotes." I use this system throughout the dissertation.



In our follow-up writing conference, Tally and I discussed her open response and her rubric score, seen in Figure 3. I gained permission to record our meeting (see Appendix A). The included transcriptions are exact and in quotes. I began by asking her how she decided to plan her paragraph. She explained to me “the prompt... you just turn it into the topic sentence.” To then back up her topic sentence, she indicated that she used supporting details from the book Just Listen and that, “it is always three [reasons] at school, I think...so I thought of my three.” She concluded by saying that she added a “clincher” or the sentence at the end. I asked her to explain her understanding of a clincher to me. She replied “It’s like... ‘the end,’ but just the topic sentence again, but...it ends it...with the reasons.” I asked her if her text included those three items: a topic sentence, three reasons to support it and a clincher, to which she replied, “I think so” and then quickly pointed to different locations in her text. I asked her if she liked her open response, to which she reminded me, “It’s just the same at the beginning of every year Ms. Graham, you write an open response about something you read or did over the summer,” but yes, that she “liked” her paragraph. I then asked her to show me her favorite line. She decided if she had to choose one thing she liked best, it was the line, *“Also that it teaches you what a true friend does.”* She liked it, she said, “because of all the adjectives,” when in fact, there is only one adjective in this line.

Throughout our discussion, the initially eager Tally grew frustrated. She struggled to see the issues I was trying to point out to her: how the organizational structure of her text may not have had a clear relationship between the type of text she was writing; her content was not responding to the prompt; and that her language choices



did not sound like school language. She replied defensively, stating she “used the rules” of the open response she had been taught: prompt+topic sentence, three reasons, clincher. When I questioned her again if she thought that she wrote a convincing argument about the book’s future in the school library, she defaulted to pointing out that she “followed the rules [her] teachers taught last year” and she was confident that she knew how to write an open response. I pressed her about possible variation or deviation from this approach to organizing her writing, noting that she had some good reasons on both sides of her argument. I suggested that she could have argued that the book would be better suited for older students, but she dismissed my suggestion, reminding me that is not allowed in open response writing. Instead, she reiterated, “That is what we did last year. That is how you answer an open response.” She then asked me impatiently if she could be “done with the meeting.”

### Kia

After three attempts, I finally got Kia to meet with me. By then it was late September and several weeks had passed since she wrote her open response. While I had not yet identified her as a research participant, she did have my attention. For the entire first month of school, she avoided nearly every writing assignment, including assignments that required only a sentence or two. Our writing conference lasted roughly two minutes, and she did not want me to record it. From my notes, I can gather that her primary objective in the meeting was to determine whether or not I wanted her to rewrite her paragraph. Paraphrasing from my short hand notes, she knew that her sentences were not all complete sentences and she expressed concern that she could not think of three

reasons. I asked her if she had read a book over the summer, noting that she never mentions a book in her open response. She stated yes, she read many “baby books” with her younger brother, but she liked them. I asked her why not write about one of those and she conceded a bit, stating she never thought about it. Finally, she claimed this particular text was about her summer reading book, Nine Lives of Chloe King, and she was “sorry” that she forgot to include the title, as if it were a moral issue. Figure 4 is Kia’s initial text. Figure 4a is the transcription. As with Tally’s, I will discuss Kia’s text in terms of grade level expectations.

Support your answer with specific examples from the text.

My thought on if it's appropriate or not for the library, I guess it kind of an opinionative question. So maybe showing all the different ways could be better. Then I'll revise if it's good or not.

One thing for sure it depends on a lot of things. one thing it depends on is you are asked to read by an ~~ad~~ adult. If they ask realistic then differently not. It also depends what kind of books you like. If you like adventures the yes. It depends on if you like to really really like understand or not. It can get confusing sometimes.

Why I might say no is: what's the point of the book besides to interest people. Or another way is if you don't think it right if it's not real. last is it takes a lot of merchandise to get the disions.

Yes yes yes. It's a fun book to read. Kids <sup>it like it at school</sup> it was adventures after adventures. It's also another way of life. That's why I say yes and no. I liked that's just me.

Figure 4: Kia's Original Open Response

My thought on if it's appreciate or not for the library. I guess it kind of an opinionative question. So maybe showing all the different wayt could be better. Then I'll revile if it is good or not.

One thing for sure it depends on a lot of things. One thing for sure it depends on if you are asked to read by an adlut. If they ask realistic then deffently not. It also depends what kind of books you like. Ifyou like adventures the yes. It depends on if you like to really really like understand or not. It can get confusing sometimes.

Why I might say no is: Whats the point of the book besides to intrest people. Or another way is if you don't think it right if it's not real. last is it takes a lot of merdride to get the disions.

Figure 4a: Transcription of Kia's Open Response

Kia responded to the prompt in multiple paragraphs rather than adhering to the open response "rule" on length, that students must write their answer in a singular paragraph. On the rubric, students get scored for using the paragraph format (see Figure 1). She did not include an introduction to a topic, nor does she include ideas that formally reference her opinion about a book. She references the school library in her topic sentence and mentions *school* in her concluding paragraph, possibly in reference to the prompt. Otherwise, there is little clear organization used to support her text. Kia also struggled with elementary level spelling and punctuation. She relies on language features more consistent with an oral register, such as *yes yes yes* and *why I might say no is* and *It depends on if you like to really really like understand or not*. In our meeting, I did not address either her spelling nor how the language that is used at school differs from the language used in conversations.

As I got to know Kia as the fall semester year went on, I learned that she was a graduate of the district's English Language Learning (ELL) program. She had been exited

from ELL based on adequate fluency test scores at the end of fourth grade. She had spent the last two school years in classes without ELL support staff. Since then, without these supports, she has had terrible grades at school and low scores on the state standardized tests. Her attendance was also markedly worse since fourth grade. Before she tested out of ELL classes, she was in an inclusion class with other ELLs and a Spanish speaking teacher's assistant, who happened to be a neighbor to many of the ELLs. Kia explained to me later in the school year that while in these inclusion classes, she had a stronger overall school experience. Kia's spoken English sounded to me (and probably to her other teachers) like that of a native English speaker and a regular, social, middle school student, however she struggled with the basic expectations of academic English and how to approach academic writing. Kia's writing was weak in comparison to her peers, justifying her anxiety around open response writing or any school writing assignments for that matter.

### Defining a Researchable Problem

Kia and Tally were not my only students struggling with open response writing. Many of their classmates failed to produce a coherent argument about a book using the open response formula. As I was listening to the taped writing conferences at a later date, it was clear to me that a significant issue was the tension between a student's interpretation of the book's content and the open response rules. The students' paragraphs were complicated combinations of formulaic writing rules mixed with some interesting ideas that were lacking textual support. Rather than discussing the writing goals with them based on their rubric scores, as I was supposed to do in these school mandated

conferences, I found myself discussing with the students the purpose of a school text—to prove something, or to explain a phenomena. Repeatedly on the transcripts, I heard myself trying unsuccessfully to explain to students that texts do not all follow the same format. At one point, in a near exasperated voice, I say to a student, “OK, but despite what you were taught last year, texts just can’t be squeezed into this weird paragraph ....urgh!” Rarely was there any uptake from students on my suggestions for changes to their open response paragraphs either.

This dichotomy between following a formula and honoring the content became clear to me when I conferenced with other students. Many explained a similar approach to an open response. In fact, I recorded in my field notes that aspects of writing formulas were more routinely mentioned in these initial conferences than any other approach to compositional literacy. Interestingly, when listening to the recordings months later, I also found that many of my students were able to deeply discuss their opinion on the quality and the potential of their summer reading books, but were often so focused on finding three reasons and a clincher, they did not realize how compelling their arguments actually were. Instead, their content knowledge regarding the book was usually treated as subsequent to the “rules” of the open response.

I also noted when listening to the recorded writing conferences that it was rare for students to discuss language as a component of their writing at all. If they did, they mentioned parts of speech in very strict ways: nouns were things, verbs were action words, adjectives were for describing. The parts of speech were also explained as disconnected their writing; there was no indication during any of the writing conferences

that suggested students understood a connection between the language choices that may support them when writing an argument. However, some researchers suggest language instruction students is necessary to support students in writing at school, instruction increasingly referred to in both policy and research as academic language. Valdez, Bunch, Snow and Lee (2005) explain academic language as “the language used in schools to learn, speak, and write about academic subjects” (p. 127). Academic language is considered by some language and literacy researchers to have grammatical and lexical patterns so distinct from every day language registers that it presents as another dialect of English and therefore must be included in instruction (Hudson, 2004; Lemke, 1988). Most students do not speak in an academic language register with ease, and many students do not encounter academic dialects outside of school (Schleppegrell, 2007), positioning academic language instruction as a viable component of designing a balanced literacy program (Fang & Schleppegrell, 2010, 2008; Willett, 1995; Schleppegrell, 2004; Williams, 2000, 2005; Macken-Horarik, 2008, 2011; Gebhard, Shin & Seger, 2007). For example, in Tally’s open response writing, she struggled throughout her text to use an academic register. Some of Tally’s casual language choices are reflective of a more every day language, such as her line *it makes you watch the people you hang out with*. These language choices could be considered by a reader or an assessor of standardized writing as inconsistent with expectations of academic writing, even though the content she is choosing to represent her position on her summer reading book is making a relevant point. With instruction on defining and comparing different language registers, Tally may

have been able to adjust her language choices to choose language more consistent with school texts.

Of importance, on the school's standardized open response rubric (see Figure 1), there were no explicit expectations for academic language. Students were only scored for formulaic structural demands and basic mechanics. That academic language is not a component of this high stakes writing rubric used to assess and enforce a high stakes writing curriculum suggests that the integration of learning to use language while writing was not a priority in Northtown Middle School's writing curriculum. It was also clear that this instructional omission has impacted my students' writing.

The student writing conferences serve as the entry point for my dissertation research, in particular, the issues around fixed structure and the lack of attention to academic language as a component of learning to write. I began to use my notes from the conferences to consider how to teach writing and language differently in the context of the high stakes literacies impacting the writing curriculum throughout Northtown. In the meetings with my students, it became apparent that this rigid writing instruction had eliminated both the writer's choices and critical thought processes necessary in creating academic texts. I concluded that since authorship was compromised when the writer was not in control of her text's organization, students had no real reason to take risks with the assignment, nor did they have agency in producing a text that was actually representative of their ideas. Ironically, while the students had memorized the open response "rules" and the parts of speech, this formulaic writing instruction was not supporting students in producing the intended results.



## The Study

Concurrently, while teaching at Northtown Middle School, I was studying systemic functional linguistics (SFL) in my doctoral studies (Halliday & Matthiessen, 2004; Halliday & Hasan, 1989). SFL is a theory of language that explains how linguistic choices within a system of possible choices function in different contexts. Theorists use SFL to explain language use, as well as to critically analyze discourse strategies that realize the social context. SFL theorists describe language as a series of lexical and grammatical systems with many options inherent in each system. Language users both consciously and unconsciously select from these systems to create specific texts, informed not only by their linguistic repertoires but also their understanding and knowledge of the context in which they are communicating. They shift their language choices depending on their knowledge of the audience and the audience's expectations of the exchange. Language, and therefore texts, are shaped by various influences. These influences include: the purpose of the communication; the audience; and the tacit boundaries that reflect the affordances and constraints of the context.

Within SFL research, there are a number of educational linguists and literacy researchers who work to understand and identify the reading, writing and language demands students face at school. Using an SFL framework, researchers and teachers use SFL to design more functional language and writing pedagogies responding to the various contextual demands that shape a specific academic task. Instructional practices focus on apprenticing students to learn to use and control the academic language resources that comprise academic registers, both in general schooling and the core

disciplines such as science, history, mathematics, literature and world language instruction. Within this body of SFL educational scholarship, researchers and teachers also explore how students respond to the instruction (Gebhard, Shin & Seger, 2007; Gebhard, Chen & Britton, 2014; Williams, 1998, 2000; 2005; Rose & Martin, 2012). Usually within a qualitative methodology, SFL educational researchers examine the practices of academic language learning within classrooms using SFL to inform and design instruction.

SFL researchers also often use an offshoot theory of SFL known as Genre Based Pedagogy (GBP) (Martin, 1992, 2009; Martin & Rose, 2008). GBP is a theoretical framework and praxis tool specifically focused on designing more critical approaches to writing instruction in schools. GBP theorists and practitioners reject writing instruction that teaches texts as having a fixed order, such as the open response model (Rose & Martin, 2012; Martin, 2009). Instead, these theorists and practitioners promote teaching students to analyze the expectations of the assignment and name the type of text they are being asked to write (e.g. historical recount, narrative, argument, scientific explanation). Under GBP instructional practices, students learn that texts have a purpose, which the student author learns to identify, even if that purpose is high stakes testing. Students also learn that texts have an audience with expectations, biases, shortcomings and values. Practitioners discuss with students that purpose and audience, when considered together, have an impact on text organization. GBP scholars describe texts as having a series of functional stages (Martin & Rose, 2008), where each stage of writing serves the overarching purpose or audience of the text. With the teacher's support, students begin by

making decisions about their text's possible stages which reflect the purpose of the assignment (Rose & Martin, 2012) and the larger goal the genre tends to accomplish (e.g. an explanation satisfies the purpose— to explain unknown information). To teach this, teachers use what is known as the curriculum cycle (Derewianka, 1990), an approach to teaching language and literacy in phases of focal text instruction, where students learn to deconstruct and analyze text and language features they are reading or writing before they are expected to independently work with the text type.

### Purpose and Research Questions

The purpose of this dissertation is to analyze the process and implementation of actualized instruction based in SFL and GBP. This work is especially relevant given the more rigid literacies students and teachers face in the context of high stakes school reforms in the US, reforms which are shaped by the discourses of standardization and accountability. As SFL is both a theory of language and learning, as well as a discourse analytic tool (Eggins, 1999; Young & Fitzgerald, 2006; Martin, 2000), I chose to observe if there were changes in student understanding of academic language and the flexibilities in writing when purpose and audience were factors in text organization. I planned to work with students over a school year, learning about their processes while learning about academic literacy when a different pedagogical model was introduced to them. I used SFL and GBP as instructional tools, teaching students that language and genre stages are functional and responsive to the writing task. I organized my instruction around the curriculum cycle, where I prioritized teaching students about the language choices and genre strategies found in various high stakes texts.

I also wanted to use SFL as a research tool to analyze and discuss changes in my students' approach to language and writing over the course of the school year. I analyzed my students' written texts as products of the research. The focus of the analysis was to use SFL to analyze the texts as to whether or not there was an impact on their approach to writing and the language choices they made depending on the assigned genre. Therefore, the following research questions guided my process of designing instruction, analyzing student texts, collecting data, designing the study and analyzing the final data that supported this work.

1. *How did my instruction change over time, if at all, as I implemented an SFL based pedagogy to support academic literacy development in my classroom?*
2. *How did my students' textual practices shift over time, if at all, in response to an SFL/GBP based pedagogy?*

To answer these questions, I used the tools of ethnography and qualitative case study research (Kamberelis & Dimitriadis, 2005; Dyson & Genishi, 2005; Merriam, 2009; Dyson, 1993; Heath & Street, 2008). I decided to focus on Kia and Tally and interviewed them throughout the year to understand their experiences with SFL based instruction. I created lesson plans with materials that reflected my emergent and developing understanding of teaching with SFL and GBP. I made changes in my lessons as I taught, basing changes on the experience I was gaining as I catalogued and recorded all teaching methods and continued to deepen my understanding of SFL as a tool to inform teaching. Throughout this process, I recorded reflections in a research journal focused on my teaching and understanding of this theory as an instructional tool

(Cochran-Smith & Lytle, 1993) and continued to read the literature in deeper ways. The collected classroom data, videos and transcripts, interviews, artifacts, field notes and a reflective teaching journal yielded a multi-dimensional corpus in which I could analyze my research questions to consider how this type of instruction could be relevant in a classroom setting for other teachers and SFL scholars.

### Brief Overview of Dissertation Chapters

Chapter One serves as an introduction to the scripted “open response” writing program I faced when I began my position in a new middle school. I discuss my response to open response writing by using a different theory of language and learning, systemic functional linguistics (SFL) as a way to respond more fully to the needs of my students. SFL supported my instructional design by providing a theory of language for me to understand and teach the context/text relations of writing assignments. In Chapter One, focal participants Kia and Tally are also introduced and are referenced throughout this dissertation.

I begin Chapter Two with an overview of SFL and GBP as theories I used to inform my work. I explain SFL by summarizing the three metafunctions and their corresponding register variables. I outline GBP (see: Martin, 1992; Rose & Martin, 2012), the curriculum cycle (Martin & Rose, 2008; Painter, 1986; Knapp & Watkins, 2005) and the theory of multiliteracies (New London Group, 1996). These theories serve as the theoretical framework for my dissertation.

Chapter Three is a review of the literature. It explicates how SFL has informed research regarding the teaching and learning of academic language and writing in K-12

classrooms. Research includes studies where teachers and researchers aim to make the linguistic demands of disciplinary texts visible for students by using SFL and GBP to support content area reading and writing. Specifically, this review investigates the work of teachers and educational linguists who have incorporated SFL and GBP into classroom settings to develop a functional metalanguage to discuss different dimensions of reading and writing based on contextual demands and text purpose. The review explores the strengths and limits of this type of language pedagogy. I discuss trends in the literature, locate my study within the research and conclude with potential for new studies.

In Chapter Four, I describe Northtown Middle School and my seventh grade English classroom which serves as the context for this study. I include state level mandates, descriptions of the school system under standardized testing and demographic data from the middle school where I teach. I provide “thick descriptions” (Geertz, 1973, p. 6) of both my context and participants including Kia, Tally and me. I outline my process for selecting these two students and describe each participant based on data gathered from reading their school files, a series of interviews and observing videotapes of their participation in my class. I describe my school setting, my classroom and Northtown and I compare Northtown at the state level to other public middle schools of similar demographics. I explain why my school made a shift in the 2011-2012 school year toward teaching informational texts in English classes, opposed to focusing more exclusively on fiction. At the onset of that school year, Northtown adopted a new *de facto* federal standards, The Common Core for English Language Arts (CCSS). In response to this shift, I designed an instructional unit on White Nosed Bat Syndrome (WNS), a

disease decimating hibernating bat populations in the Northeast United States. I present my methods on the implementation of SFL and GBP to inform my instruction during this unit. I explain how these theoretical resources supported my teaching under the CCSS benchmarks. I conclude the chapter with a description of the instructional unit on WNS and the inclusion of language based learning objectives which together, serve as the unit of analysis for my study.

In Chapter Five, I outline my research methods of both data collection and analysis. I begin explaining my work as an ethnographic qualitative case-study (Dyson & Genishi, 2005). In case study research, a researcher selects a time bounded unit of analysis to closely study and examine research questions. I explain how the instructional unit on WNS served as the bounded unit of analysis (See Gebhard et al., 2014). I discuss the tools of ethnography I used such as video data, field notes and in depth interviews (Emerson et al., 1995; Heath & Street, 2008). I include the manner in which I used SFL as a tool for discourse analysis (Eggins, 1999; Martin, 2000). I define teacher-research (Cochran-Smith & Lytle, 1993), specifically the teacher-research journal as a tool I used in data collection. I outline the project with both the methodology I used and the timeline of phased data collection.

My findings chapters, Chapter Six and Chapter Seven, explore the findings of my study. Chapter Six analyzes the praxis of SFL and language pedagogy within the six week instructional unit on WNS. This chapter provides insights into how I implemented SFL/GBP and examines the process by how the students developed a classroom metalanguage, or a language used to talk about language over the course of the school year (Macken-

Horarik, 2002, 2011; New London Group, 1996). Data analysis suggests that my students recast SFL metalanguage using more colloquial terms but used the terms functionally. Albeit colloquial, the way my students discussed language was more useful than the one Tally and Kia overstate in Chapter One. This classroom constructed functional metalanguage created a shared way for my students and me to discuss grammatical systems that supported aspects of their academic language and literacy development. Specifically, students used metalanguage to discuss informational texts, planning and revising. In some cases, they used the exact language of SFL, such as *lexical chain* and *register*. However, in most instances, they re-voiced these terms, creating their own metalanguage, conflating multiple SFL and GBP theoretical constructs into one term. Students named systems of language based on textual elements and audience expectations. They began to use metalanguage to critique and analyze expert texts based on their evolving language expectations.

Chapter Seven examines changes in Kia's and Tally's texts as products over the course of the school year, including a functional linguistic analysis using SFL (Eggins, 1999; Christie & Derewianka, 2008), as well as a genre analysis (Derewianka, 1990) of their texts. SFL and GBP are used to discuss the changes in texts over seven months of instruction after the completion of the WNS unit of instruction. I analyzed letters written by Kia and Tally to United States government officials, advocating for earmarking funds for endangered hibernating bats impacted by WNS in their region. Chapter Seven concludes with a discussion of how SFL and GBP can support teachers in teaching



reading, writing and academic language, as well as formative assessment practices when working with students in the context of present school reforms.

I conclude the dissertation in Chapter Eight, where I provide a summary of my research questions and findings, and I highlight the implications of using this theory in academic language teaching. Implications also reflect the current context of high stakes literacy practices in K-12 schools and how this affects writing teachers in teaching writing critically. I discuss specific gains made by Kia and Tally, and how they continued to struggle with writing and provide a coda on their lives now, as they are both sophomores in high schools. Finally, I align with other SFL researchers who continually call for looking at ways to teach language and writing functionally rather than the prescribed instruction so many schools find necessary for testing purposes.

## CHAPTER 2:

### THEORETICAL FRAMEWORK: SYSTEMIC FUNCTIONAL LINGUISTICS AS A RESOURCE TO DESIGN A CLASSROOM PEDAGOGY

#### Introduction

This chapter explores aspects of Halliday's functional theory of language and how the theory can be used to inform pedagogical approaches to academic language and writing instruction. However, to outline a conceptual framework on SFL, it is important to first locate SFL within the context of sociocultural theory (SCT). SCT has origins in Vygotsky's work with child development (Vygotsky, 1978<sup>3</sup>). Vygotsky, a Russian psychologist, challenged cognitive learning theories of his time, specifically the notion that maturation was the key contribution to a child's developmental processes. Rather, he understood learning as a more complex and dynamic process. From his research studies observing children, he concluded that the development of "higher psychological functions" are a process, not a product, of learning (Vygotsky, 1978, p. 6). These processes strengthen as children reengage in activities that support learning. The children he observed relied on various tools to support this process: cultural tools, physical tools, language, available adults for support and prior knowledge and experiences. However, each child approached this process based on a variety of "engrained cultural mechanisms that had become part of the child's nature" (Vygotsky, 1978, p. 16), which he maintained were more significant in learning than phases of development based on a child's age. He found that social interaction during the learning process played a fundamental role in the

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<sup>3</sup> Vygotsky wrote mostly during the early 20th century in Russia and then Soviet Russia. As such, his work was not published in English until later dates.

development of higher mentation. Vygotsky (1978) concluded that the mind is “mediated,” (p. 54) in that it relies on internal planes where cognition develops, but that it also mediates with the use of external tools, signs and language. This process was not unique to children either; he found that humans of all ages develop regulation through complex stages of cultural and biological development. Therefore, he argued that higher mental processes constantly reshape and are reused from the restructuring of the perceptual fields of memory and attention (Vygotsky, 1978; Lantolf, 2001).

Considering the role of culture and language as tools for learning, various fields, including sociolinguistics, used Vygotsky’s work to recast language and learning from staged based developmental levels to a focus on external and cultural factors. In the 1950s, J.R. Firth, a professor of linguistics at the University of London and his student M.A.K. Halliday began to develop the foundation for a functional theory of language and learning anchored in how context shapes development (Firth, 1957). In Firth’s prior work, he examined how meaning occurs beyond the actual language exchanged in any text type (e.g. conversation, essay, book). He concluded that prosody, language choices, text structure and the medium of exchange were representative systems of meaning making that were important in language exchanges (Firth, 1957). By extension, Halliday became interested in how grammatical choices were also meaningful expressions and that the grammatical choices enacted in each exchange were in response to contextual factors. In much of his earliest work, Halliday described the sophistication of lexical and grammatical choices used by young children, in particular his son Nigel. Halliday’s earliest work is a series of observations recording how Nigel interacted with one lexical-

grammatical system when he spoke to members of his family, and yet used another set of grammatical resources when speaking with strangers or with other adults (Halliday & Webster, 2004).

Collectively, Firth and Halliday began to research and write about how language users make meaning in exchanges given the variety of linguistic options at their disposal. They began to describe in their research which aspects of context are responsible for these shifts: location of usage, members of exchange, age of participants, content of exchange and eventually their work addressed channels of exchange as well: face-to-face, letter writing, editorializing (Halliday, 2004). As a result, their focus considered the varying contextual influences which inform social norms of language exchange, as well as the shared semiotic resources that have been learned, shared and manipulated over time in discourse groups. Firth extensively described how contexts have both language options and constraints that fundamentally shape rhetorical structure and all aspects of language use (Firth, 1957). Halliday furthered that these social affordances and constraints reflect the ideological beliefs of represented discourse groups, and that the grammatical choices could be described as instantiations of those affordances and constraints (Halliday, 2004).

Their work on the role of the context served as the foundation for Halliday's theory, systemic functional linguistics (SFL). Halliday's earliest writing on SFL theorizes how language choices function in contexts as systems in which speakers make linguistic and grammatical choices based on these contextualized factors. He explored how language users select from systems in each exchange, and the language that results is

inextricably linked to the context of language use. Halliday (2004) explains that “systemic theory gets its name from the fact that the grammar of a language is represented in the form of system networks, not as an inventory of structures...” (p. 23). Therefore, it is the choices language users make within these language networks that informed his analysis of how language users are engaged in a series interlocking functional systems, from which they choose language based on collective resources and goals.

Halliday’s work crosses various fields of study as well: education, second language learning, discourse analysis and corpus linguistics. Regardless of the research focus, SFL scholars prioritize two issues. First, how language systems are both organized and manipulated in response to social interactions in a context, and second, the manner in which meaning is made with grammatical and lexical systems that shape these interactions. Researchers rely on information about both the environment of exchange, as well as the goals of the exchange when explaining how lexical-grammatical systems are logically built by groups of language users engaged in communicative interactions. Halliday argues one cannot study language without prioritizing the systemic choices that shape interaction (Halliday, 1993).

These two dynamics serve equally as important when building language research within an SFL theoretical framework: the meaning made in the communication; and the context of language use. For example, it was important to begin this dissertation with a description of the context and the contextualized history of standardized literacy testing which have shaped Kia’s and Tally’s academic language development. Without a deeper

understanding of the context of text production, their texts appear to reflect their abilities and construct them as deficient learners (Fairclough, 1992).

To explore how SFL is used in designing language pedagogies, this chapter outlines the theoretical framework informing this study, and how this framework has influenced literacy educators in designing curriculum, instruction and assessment in schools. I have focused on aspects of SFL that contribute to designing a functional language pedagogy. SFL educational scholars maintain that when developing a language pedagogy, it is important to write and prioritize language learning objectives when planning out lessons to support students because of overlaps between social/academic or everyday/disciplinary worlds (Gebhard et. al, 2014). While many language patterns will be familiar to students as overlaps between their life worlds, other discourse patterns specific to schooling are less familiar. These discipline-specific lexical-grammatical patterns are more distinct from the day-to-day language students use with facility and will therefore require instruction on usage. Therefore, the theoretical focus of this chapter is on the use of SFL in schools as a tool to support specific learning attributes of academic language learning supported by SFL.

### Systemic Functional Linguistics

SFL educational scholars emphasize that both the development of a functional language pedagogy, as well as research on existing language pedagogies must include a significant analysis of the academic and political context in which the language is in use. This contextual analysis should provide a thick description of the context in which students are learning to read and write and the literacy tasks students face as related to

school reform, testing and other aspects of the curriculum. Consequently, a language study within an SFL framework is never an isolated entity; it is considered a complex response to multiple forces of a classroom: the political climate, the school, the students themselves and the teacher's experience. In this sense, language is looked at as inherently unstable, changing constantly by language users to meet their needs as they continue to make and remake new meanings.

Functional linguists refer to this set of forces as the *context of culture*. The context of culture accounts for all the potential language resources in systems from which language users can choose (Malinowski, 1935; Martin & Rose, 2008, p. 9). Classroom texts are entangled in these systemic factors which are indexed in their context of culture (Halliday, 1993; Wells, 1994; Schleppegrell, 2004; Unsworth, 2001; Martin, 1992; Christie & Derewianka, 2008; Derewianka, 1990). At the context of culture level of language description, scholars focus on the major jobs of language shaping the focal context, which they name the metafunctional systems. Metafunctional systems contain language options on the content of the text to construct ideas; the way language enacts the relationship between the reader, the writer and speaker, and the channel in which the texts are realized (e.g. internet blog, textbook, lecture, writing assignment).

Despite these vast semiotic systems that construct the context of culture, each text is created based on specific situational factors located within the context of culture named the *context of situation* (Firth, 1957; Martin & Rose, 2008, p. 9). Language users select from the larger metafunctional systems of potential lexical and grammatical options to construe each unique text's situation. Halliday describes the context of situation as "any

instance of language, in any medium, that makes sense to someone who knows the language” (Halliday, 2004, p. 3), while Firth famously described the context of situation as “you shall know a word by the company it keeps” (Firth, 1957, p. 11).

A text’s situational choices are called a text’s register. When developing language instruction with SFL, the teacher can focus instruction on a text’s author as faced with many choices, but that a final text’s register is a sensitive representation of the demands shaping the author’s purpose and his or her knowledge of linguistic choices to achieve that purpose for a specific audience. This type of instruction highlights the text/context relationship and provides a point of entry for starting this type of instruction. It encourages students to observe how specific register features are responsive to contextual demands, in particular, a text’s over-arching purpose and whom the author considered to be the text’s audience. Williams (2005) calls this type of text/context language instruction grammatics (p. 280). He explains that in grammatics instruction, students and teachers collectively analyze a text’s register as a reflection of the text’s purpose. Together, they can make decisions as to how the grammar is working within the text as an important component of text development. However, Williams maintains that “a grammatics definitely does not develop naturally” (Williams, 2005, p. 282). He outlines in much of his work how grammatics teaching should be included in instruction at all levels of curriculum development and in all content area disciplines (Williams, 2000).

In my teaching experience, especially teaching English to middle school students who are a mix of L1 and L2 speakers of English, teaching students about the nuances and systems of an academic language register are important for balanced literacy



programming. While it is not a fixed register per se, there are academic language systems used in school texts, and there are academic writing expectations which employ a distinct dialect. In alignment with Williams (1998, 2000, 2005), other studies have also found that this register is not a familiar dialect for most students (Schleppegrell, 2004) and that academic language requires language instruction, as any dialectal language instruction does. Tally and Kia both demonstrate in their open responses and subsequent discussions with me about their open response writing that their instruction has lacked this focus on grammatics. They would have both benefitted from teachers examining the dialectal language resources with them, both resources that were omitted in their texts and those that were needed to support text goals and construction. As reviewed in Chapter One, the school's rubric (see Figure 1) is extremely focused on structure and mechanics, which may suggest that academic language instruction has not been a priority in designing academic literacy pedagogies in the content area classes at Northtown Middle School.

SFL educational scholars would also question the practice of teaching writing with a rigid and pre-set structure, as the open response requires and much of standardized writing instruction prioritizes (Applebee & Langer, 2009). Instead of fixing a writing structure, SFL scholarship promotes that language is best taught enmeshed in the curriculum to support existing reading and writing goals students face. This aligns with the foundation of the theory; that language practice reflects and constructs the context in regard to experience, self/other dynamics and flow of discourse. For example, a historian uses language in a particular way to write historical texts. Thus, a history teacher will need to teach historical language when teaching historical texts. These scholars

encourage literacy and language teaching to focus students on the relationship between the academic contexts (or the context of culture) and the texts used in a specific classroom (or the context of situation). This is in contrast to more behaviorist teaching methodologies, in which language instruction and text production are taught separately from a classroom's focal content (Applebee & Langer, 2011), such as the open response paragraph and other standardized outcome-driven literacies.

SFL based pedagogy repositions language learning as salient when teaching genres and linguistic features, but also when teaching students to interact with a new discipline. Williams (2005) concludes that this kind of centralized language pedagogy as a more relevant model for developing students' academic language discourses, in that "every theory of grammar must be embedded in a theory of instruction to enter pedagogical discourse" (Williams, 2005, p. 281).

#### Metafunctions/Register Instantiation

A language study located within this text/context teaching model starts by focusing students on the idea that language has jobs. Halliday describes language as responsible for three main functions, or metafunctions (Halliday, 2004, p. 9). These metafunctions represent major language systems: the Experiential metafunction realizing the text's content; the Interpersonal metafunction realizing the language resources used to enact and negotiate relationships; and the Textual metafunction responsible for coherence across channels of communication (Halliday, 2004, p. 29). Metafunctional systems are not hierarchal, but are linguistic systems occurring in chorus with one another. They are used simultaneously in both spoken and written communication to maintain a text's

content, cohesion and to meet audience expectations (Hasan, 2009, p. 9). Willet (1995) explains the significance of teaching academic language learners and writers about these metafunctional language systems as a priority in critical language instruction. She maintains

From a sociocultural perspective, interactional routines and the strategies used to enact them are part of a sociocultural system, and to understand the meaning of an enacted routine one must examine its place in the system. Who can say what to whom, for what purpose, and in what manner is shaped as much by the local social system as it is by individual psycholinguistic processes (Willet, 1995, p. 477).

### Experiential/Field

The first metafunctional system, Experiential, accounts for how language is organized to create the content necessary to recreate experience. At the register level, this metafunction is realized through field choices, where participants (nouns), processes (verbs) and circumstantial adjuncts (prepositional and adverbial phrases) construct the field of experience. Field choices are useful for teachers to examine with their students how disciplines use different language resources to construct specific content (e.g. how language patterns work together to develop a scientific text). Teachers can also use field register resources to examine with their students how a discipline or professional field constructs knowledge with both lexical items and a functional grammar to support those lexical items.

The field register variables, participant/process/circumstance, create a system of transitivity in a text where something is doing or impacting something else. Teachers can begin teaching with these field resources by demonstrating for students how grammatical

patterns unfold in texts in a transitive way. This can be a resourceful analysis in classroom instruction, as teachers can direct their students to examine how grammar supports authors in using disciplinary language, as well as how content language is distributed across a text. Learning about disciplinary language in this manner also invites secondary students into fields of practice. Questions teachers can examine with students are: How do lawyers create *legalese*? How do journalists use language to report on stories about scientific discoveries? What language resources do scientists routinely need to build up an explanation of a new phenomena? How do you know if something you are reading is true or exaggerated?

To answer questions such as these, teachers can demonstrate for students how transitivity works in the disciplines by starting with clause breaks. Halliday explains that a field analysis with clause breaks is a way to observe how grammatical patterns are mapped onto clauses across the text, and how these patterns will carry across other aspects of the text as well (Halliday, 2004, p. 8). Functional clause breaks rely on separating sentences into functional groups that focus on one process or verbal group, and then considering how the participant and the circumstance interact with that process. Functional clause breaks play an important part in a field analysis, as each clause will most likely include aspects of a participant/process/circumstance combination, a pattern that will carry between clauses. This process of text analysis also supports students and teachers in identifying trends across clauses, thus highlighting how grammar is working in a particular text. Fang and Schleppegrell (2010) further that this close analysis of transitivity patterns across clauses is useful for students to gain an understanding of how

language works in disciplines and their respective fields, and also allows students to unlock patterns in these texts and gain familiarity with how the language is working (p. 11).

Figure 5 is a sample of clause breaks and a transitive analysis on an “expert” text, or a text written and published by an author of a field (in this example, a biologist). I taught this text in my seventh grade English classroom to the students so they could learn more about White Nose Syndrome (WNS), a disease impacting hibernating bats in the Northeast United States (See Appendix 3 for this full text). I began by breaking the text into clauses before class began, so I could discuss possible patterns with students in a lecture format. During the lecture, I asked my students to consider how the grammatical patterns support the purpose of a scientific explanation. Students were to observe and discuss during instruction the grammatical patterns they saw in a text, and how these patterns reflect the goals of the lesson; to understand WNS.

Participant	Process	Circumstance
White-nose syndrome (WNS)	is (relational)	a disease
(ellipsis)	affecting (material)	hibernating bats.
WNS	is associated (mental)	with extensive mortality of bats in eastern North America.
WNS	has spread rapidly (material)	First documented in New York in the winter of 2006-2007, across the eastern United States and Canada,
and the fungus that	causes (material)	WNS
(dependent clause)	been detected (material)	as far west as Oklahoma.
Bats with WNS	exhibit (material)	uncharacteristic behavior during cold winter months

Participant	Process	Circumstance
(ellipsis)	including flying (material)	outside in the day
(ellipsis)	clustering (material)	near the entrances of hibernacula.

Figure 5: A Sample Transitive Analysis from “Something is Killing Our Bats!” (2009)

I write with greater depth in Chapter Six the manner in which my students learned to discuss grammatical patterns in scientific texts. However, in this instance in Figure 5, an important aspect of a field analysis and relevant for instruction would be to examine with students the processes (verbs) carry content in this text. As seen in the parenthesis after the processes in the second column of Figure 5, the transitive process (verb) can be divided into five meaning based categories: material, mental, verbal, relational and behavioral. In the scholarship, naming grammars into more specific categories with students is understood as grammatical delicacy (Halliday, 2004, p. 22; Williams, 1998, p. 37). I used process delicacy in my teaching with students, asking them to draw conclusions as to how they understood verbs from previous instruction—to which they replied “ verbs are actions.” Upon examining this example, students began to understand processes as content carrying lexical items, a necessary part of scientific discourse. Understanding this delicate level of process types is both foundational for students when learning disciplinary texts types (e.g. an explanation on bats), and functional for students who are learning to write with academic language in their written texts. For example, in the instance of the bat text in Figure 5, the purpose of this text was to explain bats and disease, therefore the text relies on material and relational processes to achieve this

purpose. With this language, I was able to explain that the author chooses to write with a high use of material processes (processes that do things) and relational processes (processes that connect participants to circumstances) because these kinds of verbs helped the writer develop and achieve an explanatory text. This pattern is functional; it is in place so the audience—my students—could learn about WNS. Teachers can further explain that using material and relational processes are functional for scientists because the purpose of scientific writing is to both identify and describe the materialization of phenomena. Long term, a goal of transitive analysis with students can support them in learning to analyze these grammatical resources in expert texts as a way to learn to write similar texts of their own (Knapp & Watkins, 2006).

At the secondary level, students also encounter more complex texts across the disciplines. These texts often change a word's part of speech, restating part of a nominal group as a way to reinforce the concept, yet also as a way to avoid repetition. In a field analysis, this pattern is called grammatical metaphor, as language can metaphorically change jobs by shifting around a few resources (e.g. the verb "to remove" becomes "the removal of" something). The most functional pattern within grammatical metaphor is nominalization, or the "turning things that are not normally nouns into nouns, with consequences for other parts of the sentence" (Eggins, 1999, p. 58). Nominalization is a frequently used grammatical pattern in lexically dense texts, as their purpose is generally to extend knowledge about specific participants (nouns) throughout the text (Fang & Schleppegrell, 2008; de Oliveira, 2010). Teachers can include grammatical metaphor and nominalization as part of their instruction around more dense classroom texts with

students, teaching the grammatical and lexical patterns as transitive. Understanding the function of transitivity helps guide students to recognize who and what the major players and actors are in assigned texts. In Chapter Three, there are examples of how teachers use the field register variables and nominalization to support academic language, reading and writing instruction.

### Interpersonal/Tenor

The second metafunction, the Interpersonal metafunction, accounts for the grammatical choices that maintain intra-textual relationships. At the register level, these resources are called tenor. Relations such as deference, anger, agency, authority and level of familiarity are construed through grammatical resources that create these aspects of an exchange. In tenor, the language choices that create interpersonal dynamics in an exchange are described as part of a lexico-grammatical cline (Halliday, 2004, p.43). This cline represents the range of options language users have to say the same thing, but depending on the recipient audience, they will select various lexical and grammatical options from this cline accordingly. These choices may carry similar meanings but have a different impact on the exchange.

When analyzing a text with a tenor analysis for classroom purposes, as in a field analysis, teachers can start with clause breaks. Teachers can ask students to consider the ways in which patterns of grammar may be response to the demands of the text. For example, almost all clauses have subjects, even if implicit or implied. These subjects are linked to a finite verb, an infinite verbal system or a finite/infinite verbal group. Together, the subject and finite groups are organized to create a mood system, or the syntactic



organization of clauses: declarative, interrogative or imperative. Some clauses also have “residue,” (Thompson, 2004, p. 81) which is all the other language resources of the clause, which support the subject/finite mood construction. Other clauses have subject +finite, while still others omit the subject all together. Nonetheless, subject, finite and residue, and how they are arranged in a clausal construction, are all mood resources tightly connected to audience expectation.

Genres use mood systems differently. For example, while narrative writing can include a variety of clause constructions to create a story from memories, dialogue and self reflection, informational texts often use a more declarative syntax in clausal organization, reflected in their purpose; to explain and to teach. This is a reflection of context of culture, as these clausal structures are expected by audiences based on their implicit genre knowledge, developed in part by being members of a context of culture. This relationship between tenor and genre expectations can be discussed with students as part of a text-context relationship.

Tenor resources also account for systems of appraisal. Appraisal is a sensitive system of praise or dismissal of a topic that constructs authorial credibility. For example, in Tally’s open response, she claims that *“Just Listen” is a GREAT book for middle schoolers to read*. In this instance, she capitalizes GREAT and uses emphatic language like GREAT to position herself as very excited about this book, rather than more neutral language which may have arguably been more effective. Teachers can discuss with students issues of appraisal in academic discourse, in particular the idea of using the language closer to neutrality as an important part of learning to read and write in an

academic language register. In the sciences in particular, language that constructs neutrality is the privileged register. In discussing systems of appraisal within an academic register, teachers can instruct students to identify emotions in writing and have them consider if this level of emotion reflects the goals of the writing genre. Often, appraisal is found in parts of texts adverbial phrases or exclamatory punctuation (!). Higher levels of appraisal may compromise authorial credibility, and teachers can work with students on understanding how language is tied to presentation of self when writing for different purposes and audiences.

There are other grammatical resources which contribute to appraisal systems: polarity and modality. Polarity, and by extension, negation, are the grammatical resources which create positive and negative poles of possibility realized through the grammar. Polarity is best represented in English as to how negation works within a verbal group. If a verb takes on negation, such as *finite+not*, or other lexical items are used in a sentence such as *never*, *nor*, *nary* and *not*, this puts the subject of the sentence on the poles, or the extremes of possibility. There is little room for negotiation if polarized negation of this kind is present (Thompson, 2004, p. 66). This could also present as an issue in school discourse, where students are often encouraged to take the middle position in writing and present multisided arguments. To counter strong poles in academic writing, teachers can discuss modality with students, or the modal space between poles. Using modal verbs that express both necessity or possibility, such as *can*, *might*, *may*, *ought to*, *should*, *would* and *could*, can help writers learn how to hold a more neutral or central position.

As with a mood analysis, appraisal systems are also best analyzed across clauses in a text, and across exchanges if the analysis is of a conversation. Both mood and appraisal systems present as a series of choices found on the lexico-grammatical cline as well, choices which ultimately result in an exact text reflecting the goals of members of the discourse exchange. Figure 6 is an example of how I used clauses to teach these concepts to my students. In Figure 6, I have transcribed notes taken off the board in my classroom. This was not part of a unit per se, but instead this type of teaching is called a mini lesson, an isolated language lesson used to introduce a concept that can be picked up in multiple aspects of the curriculum as the school year unfolds. This lesson intended to teach students credibility as an important concept that informs academic language and writing. This data was taken after two months of SFL based language pedagogy.

1. *She is the **most wonderful** teacher ever!!!!* [***high appraisal**-may compromise credibility and neutrality*]
2. *She **is not** a good teacher.*// [***negative polarity**=is not. No room for negation, at the poles of grammar*]
3. *She **should be considered** a good teacher/ but the students just **do not like** her.* // [***modality**=should be, leaves room for change, unlike polarity. **negative polarity**=do not like*]

Figure 6: Notes from Chalkboard on Grammatical Tenor

With my students, I discussed in this mini lesson how the verbal groups and some adverbs held meaning in the statements, and in turn, how these resources impacted the reader. Students also began to understand verbal groupings from this lesson, and how

powerful the finite is in English; responsible for the meaning in polarity, possibility, tense, content and modality.

Resourceful to developing lessons focused on academic language registers, the Interpersonal metafunction also describes how the language systems in spoken language differ from the language systems in academic writing or professional texts. As there are different priorities in the purpose of written texts when compared to conversation, register variables of tenor account for these variations. For example, in conversations, grammar is helpful in prioritizing efficiency and conversational flow. However, in a more academic language register, communicators must assume less shared information and therefore, must grammatically support their texts with more language of objectivity, low appraisal and a stable mood system, generally with declarative clauses (Eggins, 1999). Teachers can work with students on labeling “everyday language” versus “academic language” in their written work, beginning to teach how there are overlapping aspects of everyday and academic discourse, but there are also different grammatical priorities that reflect the text type and purpose.

Teachers can highlight for students the relationship between everyday and academic discourse using the register variables of tenor in relationship to the lexico-grammatical cline. Teachers can have students write the exact same content but switch the audience each time and observe how these changes impact language choices. Students can analyze how their grammatical choices change when the audience becomes distant versus familiar, friendly versus an authority, and they can observe the grammatical resources needed to realize these differences. Figure 7 is an example of how this kind of

instruction can look in a classroom setting. In Figure 7, Tally is responding to her language options by rewriting the same statement about a big snow storm that hit our town in October, changing her language based on the audience. It is interesting to note that I was also able to conduct this kind of analysis of linguistic choices and participate in this kind of pedagogical language play after only two months of instruction (note date on activity is 11/2/2011, two months after she submitted her open response).

DATE: 11-2-2011 PERIOD: 5

Objective: How do your REGISTER choices change based on purpose/audience?

Describe the storm to the following people:

- ☒ Update your facebook status. Explain the storm to friends who don't live in Western, MA.
- ☒ Pretend you are a meteorologist, and explain the storm to an audience of scared people whom don't fully understand what just happened. Write a script.
- ☒ Pretend you are a parent. How would you explain the storm to your child?
- ☒ Your house got crushed by a limb. Explain the situation to an insurance agent.
- ☒ Write a note to me, your teacher, fully explaining why you are not prepared today, identifying the biggest cause of your dilemma the "storm".

Write your responses here—I don't care what order you choose. Just remember to label them. (ie #3).

#1: OMG this storm in Hamp is SO crazy!  
So we have like a legit foot of snow  
Wet... Sticky... Cold snow! No power  
EW! Wish i had some hot cocoa!  
:-)

#2: -This is meteorologist  
reporting for your local news  
channel. Inches and inches of  
snow have completely covered  
the pioneer valley and power  
may be lost! time to break out  
the winter clothes: Hats, Gloves,  
Jackets, boots get 'em all out  
it'll be a cold one!

Figure 7: Tally's Analysis of Language Choices Based on Purpose and Audience

Clause breaks: Facebook update	Clause construction (tenor: mood)	Tenor analysis
OMG	imperative	omitted: subject/finite=oral discourse marker
this storm in Hamp is so crazy!	imperative	appraisal: high: use of <i>so</i> , <i>crazy</i> , and (!) so crazy=oral discourse marker Hamp: truncated name of town=oral discourse marker
So we have like a legit foot of snow	declarative	finite: we have like a legit =oral discourse marker
wet...sticky...cold snow!	imperative	omitted: [There is] subject/finite=oral discourse marker
no power yet	declarative	omitted: subject/finite
EW!	imperative	appraisal: oral discourse
Wish I	declarative	inverted subject finite=oral discourse marker
had some hot cocoa!	imperative	appraisal: high, use of :(!)

Figure 7a: Tenor Analysis of Tally's Grammatical Choices on a Facebook Status

Clause breaks: Facebook update	Clause construction (tenor: mood)	Tenor analysis
This is meteorologist	declarative	no appraisal
reporting for your local news channel	declarative	no appraisal
Inches and inches of snow have completely covered the Pioneer Valley	declarative	high(er) appraisal=inches and inches/oral discourse marker
and power may be lost!	imperative	high(er) appraisal=(!)
Time to break out the winter clothes: Hats, Gloves, Jackets, boots	declarative	authoritative=adopting mood system of meteorologist
get 'em all out	declarative	oral discourse marker, but consistent with meteorology
it'll be a cold one!	imperative	oral discourse marker, but consistent with meteorology

Figure 7b: Tenor Analysis of Tally's Grammatical Choices as a Weather Reporter

In the quick tenor analysis<sup>4</sup> seen in Figure 7a, in her first recollection of the event it is clear that Tally is using mood based on the identity she is adopting as a Facebook user. She relies on clausal construction more consistent with oral discourse, whereas when she's a meteorologist (Figure 7b) she is beginning to adopt a hybridize technical and oral register discourse with language features more germane to a meteorologist on the news reporting about this storm. She also uses more declarative clausal syntactic organization when she's a meteorologist, distinct from when she's a teenager on Facebook. In her Facebook example, she uses high appraisal. She omits subject+finite combinations; she uses exclamation points (!); and allows oral discourse markers that represent her age group to exist (e.g. OMG, so crazy, legit). She knows to not use these language resources when she is a meteorologist. While I did not do more with the activity with her, long term, I could have showed a comparative analysis of the way she uses grammar to help her better understand grammatical systems and their impact on the audience.

### Textual/Mode

Different modes of communication also depend on varied aspects of cohesion and require different grammars to create textual coherence. These grammatical resources are explained in the third metafunction, Textual, to highlight how a text's grammar functionally constructs and maintains coherence. At the register level, these textual resources are analyzed as the register variable mode. A mode analysis accounts for the way clausal organization is grammatically responsible for maintaining some ideas while

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<sup>4</sup> For more on "quick analysis" with SFL, please see Chapter Seven

simultaneously building upon these ideas to create new information throughout the text. Halliday's description of mode is highly relevant for students learning to write, in that "the Thematic organization of the clauses is the most significant factor in the development of the text" (Halliday, 2004, p. 105).

As teacher, I have found using a mode analysis in my classroom useful. I begin by breaking a focal text into clauses. With these clause breaks, I instruct students to use the register variable mode to analyze two functions in text found in each clause: the Theme<sup>5</sup>; and the Rheme.<sup>6</sup> The first part of the clause, the Theme, is given information, information which is either connected to shared knowledge outside of the text or refers to information already stated within the text. The new meaning, building on this Theme, generally occurs in the second half of a clause, or the Rheme (Halliday, 2004, p. 65). This combination of Theme/Rheme describes how a text gains momentum, developing new content built upon prior information. In classroom teaching, teachers can also call this the "zig zag," showing how information in each sentence builds on the one before it. In Figure 8 is a picture of one of my student's zig zag analyses. In this instance, this student is demonstrating the lexical item in the previous sentence's Rheme, picked up in the next sentence's Theme, noting when new Themes occur with different colors.

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<sup>5</sup> SFL scholars capitalize Thematic to distinguish from literary terminology *theme*.

<sup>6</sup> SFL scholars often couple Theme with Rheme, as together, they are described as responsible for text generation. See Halliday, 2004, pp 64-67 for more explanation.



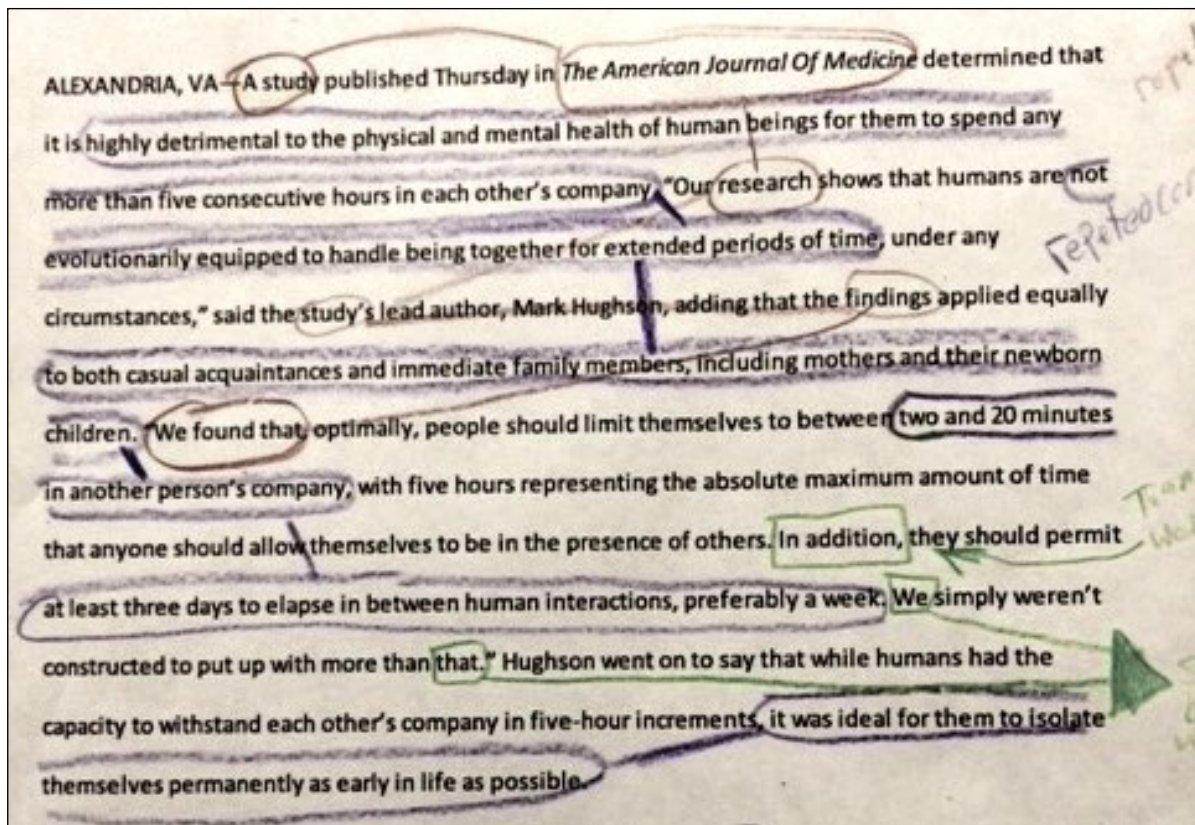
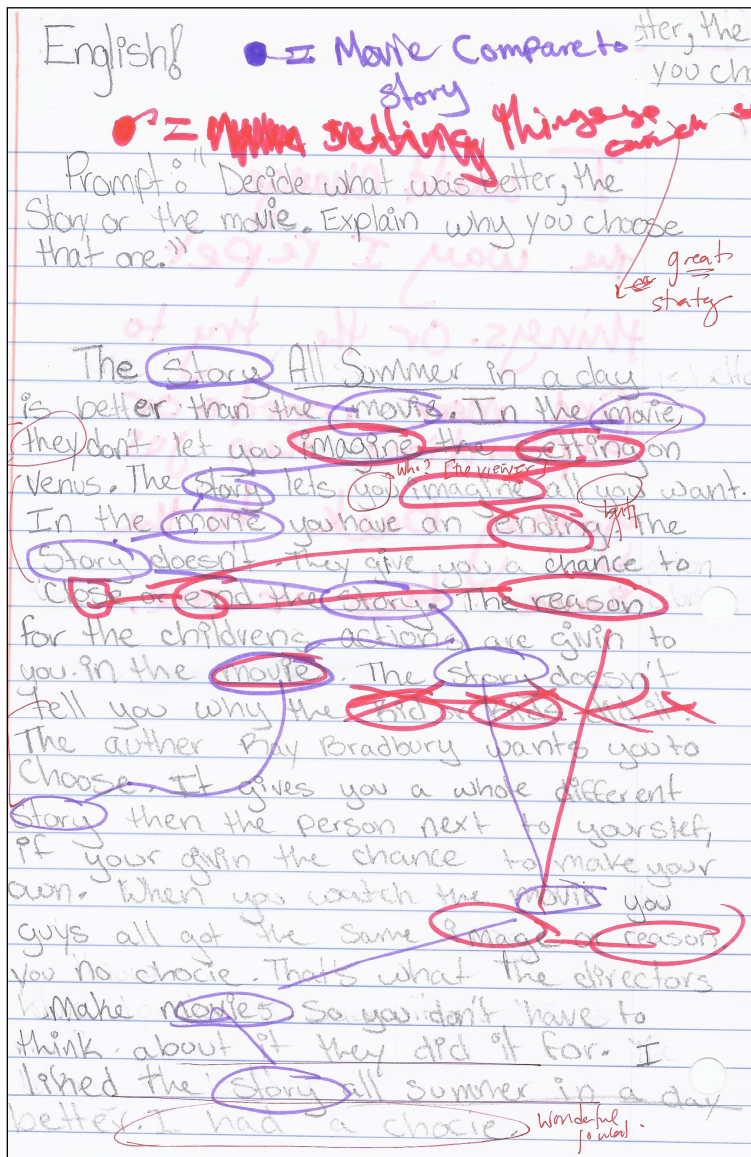


Figure 8: Student ZIG ZAG Analysis of Theme and Rheme

A register analysis using the register variable mode and subsequent resources highlights the development of that language resources that maintain internal (endophoric) and external (exophoric) referencing systems. These systems contribute to overall textual coherence, as both systems contribute to maintaining the topic. Internal systems draw upon prior text components, while external resources draw upon shared knowledge of the outside world to maintain a Thematic flow in communication (Eggins, 1999, p. 98). These textual choices can be tracked across a text with “lexical chains” (Eggins, 1999, p. 102). A lexical chain links together the multiple grammatical choices contribute to maintaining this system of cohesion (Eggins, 1999, p. 103). When analyzing a lexical chain, student readers and writers can observe how Thematic information is maintained with various aspects of language across the text: pronouns, adverbs, nouns, adjectives,

verbs as well as synonyms and grammatical metaphors. These grammatical resources can be taught to students as contributions to topical maintenance, used to follow the logic of a text and to help them develop and maintain content in their own writing. In addition, studies have illustrated that supporting students in analyzing lexical chains supports reading comprehension and writing (Gebhard, Chen & Britton, 2014)

Figure 9 is an example of Kia's lexical chain on her open response about the short story *All Summer in a Day* by Ray Bradbury, written during the fall semester. She is using these tools of cohesion to see if her text maintains coherence, checking that she has maintained her ideas throughout the text to support her argument. Her argument reads that this story is better served in a text-based short story medium than in the movie interpretation. Given her argument and concession, she identifies those topics as chains she will "check" in her revision phase. Kia's drawing of a lexical chain on her final copy tracks the language resources she has used to maintain her Themes. I have tracked the items she has chosen on the right and side of her image. She did this analysis in mid November after ten weeks of instruction.



Prompt: Decide what was better, the story in text form or the story as a movie. Explain why you chose that

Lexical items she has circled to check if she has maintained her argument **(red chain).**

imagine, setting

imagine

ending

chose, end, reason

movie

Figure 9: Kia's Lexical Chain to Check Thematic Maintenance

Kia's text translated from Figure 9: The story *All Summer in a Day* is better than the movie. IN the movie, they don't let you imagine the setting on Venus. The story lets you imagine all you want. IN the movie you have an ending, but the story doesn't. They chose to end the story with the reason for the children's action are given to you in the movie. The story doesn't tell you why the kids hide did it. The author Ray Bradbury wants you to choose. It gives you a whole different story then the person next to yourself if your given the chance to make your own. When you watch the movie you guys all get the same image and reason you no chocie. That what the directors make movies. So you don't have to think about tit they did it for. I liked the story all summer in a day better. I had a choice.

In Figure 9b, she explains what she has learned by lexically chaining her text see in Figure 9.

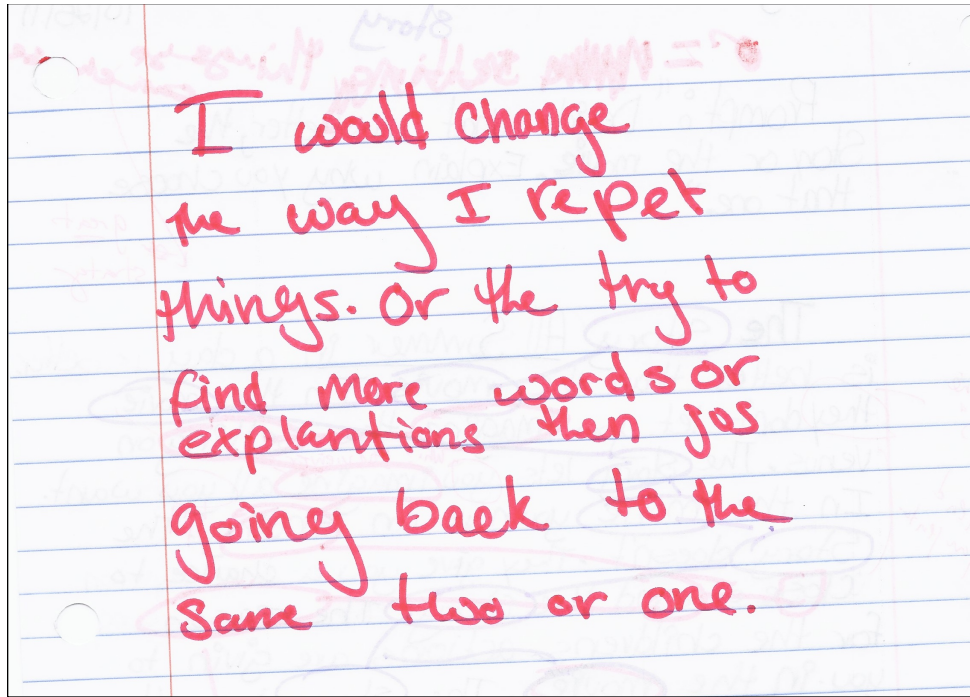


Figure 9b: Kia's Response: "What did I learn from my lexical chains?"  
*Translated: I would change the way I repet things. Or the try to find more words or explanations then jus going back to the same two or one.*

When put into a teaching practice, field, tenor and mode can support students in learning about the academic registers that inform disciplinary language. A critical use of SFL in teaching texts in relation to the contexts they serve moves pedagogy to more critical, away from the type of instruction promoting test taking, such as the open response writing. Given this framework, there have been responsive other theories that highlight the praxis between SFL as theory and critical instructional practice.

### SFL Praxis

In 1979, scholars interested in the application of SFL theory into classroom practice began to research and write about the language education and writing demands students and teachers faced. These scholars, based in Sydney, Australia, and most of them former students of Halliday, located their work in an analysis of school writing genres. In particular, they focused on how genres were taught in schools and which genres were valued, assessed, privileged and prioritized across the disciplines (Martin & Rose, 2008).

The scholars began collecting and analyzing the writing demands they found in multiple schools in and around Sydney. With this data, they concluded there were actually a limited number of macrogenres (Christie & Derewianka, 2008) that dominated school assessment tasks: *instructing genres*, such as protocols and procedures; *informing genres*, such as descriptions and reports; *genres that catalogued events*, such as recounts, summaries and observations; *argument genres*, such as position papers, opinion statements and thesis writing; and *narratives*, both personal narratives and academic (Martin & Rose, 2008, p. 7). There were variations within the macrogenres, as well as some hybridized versions of these genres, but they concluded that these were the formidable set of genres informing school writing.

They found when analyzing like genres, that there were stable genre stages, or the moves that writers make to get from the start to the finish of the text to successfully achieve the writing purpose. Stable stages were explained as the purposeful features found across like genres (Martin, 1993). For example, argument writing generally begins with the writer's position, followed by a varying number of stages used to provide

defensible rationale as to why the author is correct in this position (Martin & Rose, 2008; Derewianka, 1990). Genre research, built on this work, explains that higher scoring arguments written by school aged students generally ends with a final comment stage, or a reflection of what the reader should now know based on this position paper (Christie & Derewianka, 2008). However, there were optional stages in these macrogenres as well. For example, in the case of argument writing, some students acknowledged the other side of the position, while other students provided a mini summary of the topic before moving into the defense (Christie & Derewianka, 2008, p. 131). These scholars concluded that this manageable number of macrogenres could be an important component in teacher preparatory programming (Rose & Martin, 2012). Teachers could introduce students to the macrogenres as a tangible set of texts. These texts could be taught as including both stable and optional features to achieve the text purposes (for more on this work, and more recent manifestations of it, see Rose & Martin, 2012).

The group of scholars closely analyzing the genres of primary and secondary schooling become known over time as The Sydney School. With their early focus on the notion of *genre* as realized on the context of culture level, scholars began to conceptualize macrogenres at school as constructed, produced, reproduced and reified within school contexts. Furthermore, these genres served as gatekeepers to tertiary education and the working world. In order to participate in these institutions, students would need access to these dominant genre types (Martin, 2009). The Sydney School collectively began to consider genre stages as responsive the context, much like register. The stages of genres, like register, were choices students could make based on the context



and the assignment. Students could learn genre stages as stable or optional, which shifted based on similar conditions to register: content, audience and mode of exchange (Martin & Rose, 2008).

Central to their work was also the issue of social class and access to macrogenres. From a critical perspective, The Sydney School sought to democratize genre instruction, so that all students had access to these text types of which they found in their work held so much power in schools. They wrote about making genres visible and explicit (Martin, 1992; Derewianka, 1990; Butt et al., 2000) rather than invisible and implicit with hierarchical access. These scholars began to consider the idea that genre was a separate layer than the register variables of a text, an overarching culturally influential layer representing ideological and power structures impacting schools. They maintained that genre still construed the three register variables on various strata of language levels in order to achieve a text's purpose (Derewianka, 1990). They also maintained that the role of cultural maintenance in macrogenres positioned genres as part of the context of culture (Martin & Rose, 2008), especially in terms of genre knowledge and access to these dominant text types.

Another important aspect of Sydney School scholarship was their use of Basil Bernstein's theories of social linguistics. Bernstein, a linguist who was also a colleague of Firth as well as an influence on Firth and Halliday's earliest work, is most known for his theory of codes. This theory "refers to a set of organizing principles behind the language employed by members of a social group" (Littlejohn & Foss, 2002, p. 178). Bernstein discussed when language learners learn to use language, they are "learning initiate,

generalize and reinforce special types of relationships with the environment and thus create for the individual particular forms of significance” (Bernstein, 1971, p.76). Sydney School’s genre theorists concluded from Bernstein’s work that even the youngest school aged students they observed could participate in routine staged social interactions when these students were instructed on the stable and optional stages available to them. The youngest students knew how to argue their stance, present information, engage in explanations of phenomena and provide information about a topic. They concluded genre knowledge, like social codes, came from continual practice in these text types that were part of their everyday social lives. However, they also found that this advanced genre knowledge was rarely capitalized on in classroom teaching (Martin & Rose, 2008; Martin, 2009).

From the work of Sydney School scholarship emerged Genre Based Pedagogy, or GBP, most associated with Sydney School scholars J.R. Martin and David Rose. This work takes a more critical stance on language and genre teaching, encouraging teachers to include in their teaching stable and optional features and stages as inherent in texts as part of writing instruction. Painter (1986) and Derewianka (1990) further developed GBP in instruction and wrote extensively on the curriculum cycle. This instructional model serves as a way to phase in language learning goals into curriculum writing with a strong emphasis on teaching the functions of macrogenres as a focal part of instruction. Their work highlights the genres that dominate school culture and the need for phased instructional goals around making these genres visible and explicit for students through purposeful and deliberate instruction.



In the remaining portion of this theoretical framework, I review how GBP and the curriculum cycle are resources for SFL praxis. I conclude with the theory of multiliteracies, a theory that conceptualizes literacy and language instruction to continually respond to shifts in technology and multilingualism. (For more on the work of The Sydney School, please see: Martin & Rose, 2008; Rose & Martin, 2012; Knapp & Watkins, 2005; Painter, 1986)

### Praxis: Genre Based Pedagogy

Within GBP scholarship and applicational praxis, genre is understood as a type of text serving a function within a context. Genres have stages, or different functional parts that transition the purpose of the text from one aspect to the next in order to realize the purpose (e.g. orientation — argument — final comment). A text's internal organizing features are primarily connected to the purpose of the text. Rather than a fixed set of moves, as genres are often described to students, GBP scholars describe genre instruction best positioned as “staged, goal oriented processes” (Martin, 1992, p. 505). Each stage of the text is understood as “recurrent configurations of meaning that enact social practices” (Martin & Rose, 2008, p. 6). Martin explains that genre instruction should therefore “start from the social context, the institutional location, the social relations of texts, and the social practices within which they are embedded” (Martin & Rose, 2008, p. 78). Genre theorists also maintain that genre instruction should reflect genres as a combination of both stable and flexible stages that reflect a text's pedagogical purpose. This means that while there are some teachable stabilities in text organization, especially in genres routinely taught at school, these theorists also accept variation as an equally

important aspect of genre instruction. Scholarship in designing GBP in actual classrooms demonstrates that students can be taught to loosely plan texts by organizing potential structural stages based on the assignment with an emphasis on a student's existing knowledge of how genres work. In these instances, teachers work with students to consider the affordances and constraints students have within the context and recipient audience of the text. When audience and context are considered, discussing variation in text stages become a significant part of instructional practices as well as in planning one's writing. GBP instruction can also be tightly linked to the field, tenor and mode register variables, highlighting register features of content, audience and cohesion which mirror the goals of the compositional task (Martin & Rose, 2008; Christie & Derewianka, 2008).

To introduce my students to more critical approaches to genre and writing, I asked them to begin by considering what kinds of genres are used in their daily lives and in the working world. I included both school and professions and asked them how a writer's focus and contextual demands impact the writing they do at work. This was the first writing lesson I taught in response to the open response assessment, taught in early October. In Chapter Six, I will continue to refer to data where students discuss genre and professions throughout the Fall semester after this lesson. However, Figure 10 is of Kia's notes on genre and how she understood texts at school and in the working world from this early mini lesson. The names of the genres across the top of the worksheet *Explanation/Informational (E)*, *Argument (A)* and *Narrative (N)*, were the genres put forth by the new curriculum benchmarks that year, *The Common Core for English Language Arts (CCSS)*, which will be discussed in more depth in Chapters Four and Five.

GENRES in the WORLD		
Explanation/Informational text (E)	Argument (A)	Narrative (N)
WHAT IS IT? Describe something I don't know	WHAT IS IT? An idea to go against someone else's explanation	WHAT IS IT? A story about a life
Where is it this genre seen at SCHOOL? Math & science	Where is it this genre seen at SCHOOL? English class	Where is it this genre seen at SCHOOL? Social studies & English
Who needs to use this type of writing at work? Scientist or a detective	Who needs to use this type of writing at work? Lawyer	Who needs to use this type of writing at work? Journalist & Author & Detective

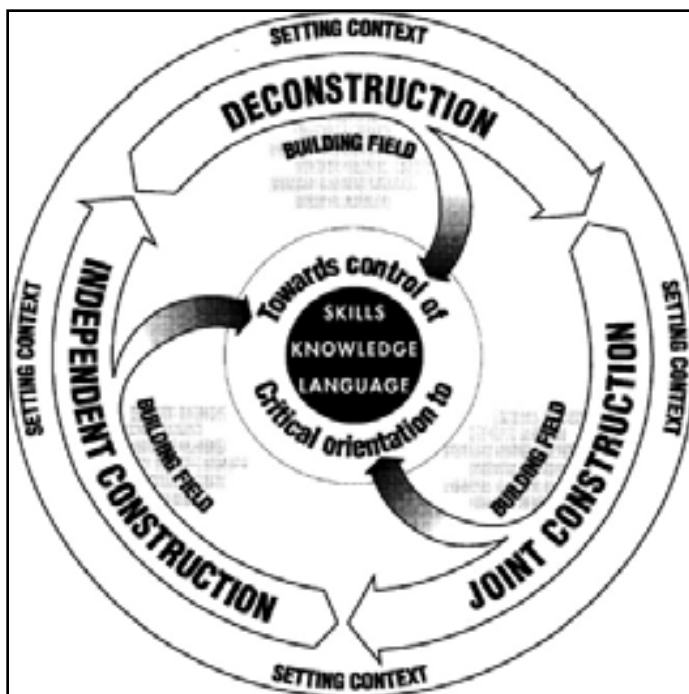
closing activity - to give an outlook on how things in school are connected to jobs & life. Also how genres are part of my life everyday.

Figure 10: Kia's Notes on CCSS Genres Used at School and in the Workforce

### Praxis: The Curriculum Cycle

Many teachers using GBP to design their pedagogies often depend on the curriculum cycle (Derewianka, 1990; Martin, 2009; Rose & Martin, 2012). The curriculum cycle is also often associated with The Sydney School. The cycle is an instructional tool for teachers to use when supporting students in learning a curricular unit's focal texts. It is often represented graphically as a series of circular phases that are taught as a cyclical approach to learning about these text types (see Figure 11). Teachers begin by identifying a series of core texts that support student learning on a unit's focal content. These texts serve to develop content knowledge and a wider semiotic repertoire

needed to construct new disciplinary meanings. When designing unit instruction this way, teachers include the selected core texts to support each phase. Then, teachers consider where to involve student learning within the included phases: (1) learning about the focal field and reflecting on prior knowledge of the topic, (2) deconstructing the selected expert texts, (3) jointly constructing texts with experienced practitioner and (4) students moving towards independent text construction. Each of the included phases spiral inward, circling toward student independence with reading and writing the focal text type, removing the role of the teacher with each phase. This cyclical approach is opposed to more step-by-step mastery-based sequences, found in most curriculums. Figure 11 (Martin, 2009) is a common illustration provided to teachers outlining the cycle.



Taken from : Martin, J.R.  
(2009)

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Figure 11: The Curriculum Cycle

A central belief practitioners have when using the curriculum cycle is the belief that there are a set of unstable macrogenres routinely used in classrooms to construct the knowledge presented to students. In turn, students are asked to demonstrate this knowledge using these same macrogenres. The curriculum cycle especially supports content area teachers with massive amounts of content to cover in a school year. Often, content teachers are report to a focus on teaching the content of their discipline (Moje, 2008) and may not value the instructional focus on the macrogenre. However, Painter (1986) suggests that teaching the type of texts more often used to present the content is as important as teaching the content itself. For example, when the curriculum cycle in my research design, I considered the two text types I was going to teach to my students when designing my content instructional goals: the scientific explanation and a letter of request. Including text type instruction in my lessons was not as time consuming as I may have thought, as I used the focal texts to instruct students on the language resources that constructed these two text types. My instruction using the curriculum cycle will be discussed further in Chapters Five and Six. However, Figure 12 is an example of how I introduced my students to the genre of the letter using the deconstruction phase of the curriculum cycle (phase 2). In this sample, Kia names the jobs of each paragraph on a worksheet I made about to support her in deconstructing a letter requesting action. This lesson was used to teach all my students on how texts build, what the stages are that make up a letter and why these stages are functional in constructing a text. After analyzing the letter, students also concluded the relationship between each paragraph. I have included her text and her final analysis in the boxes on the right.

Genre: A series of decisions a writer makes to create a text that achieves a purpose.

My address  
123ABC Tree Road  
Arboregreen, USA  
12345

Your address  
123ABC Newspaper Road  
Arboregreen, USA  
12345

Dear Editor:

The purpose of this letter is to alert your readership of the ongoing problems surrounding air pollution in our area, and my solution to fix it.

Our country is facing a severe problem of air pollution in every town and city. This is caused by pressure on oxygen resources. Scientifically speaking, every adult is utilizing 250 ml of oxygen every minute, 15 L of oxygen every hour, and 360 L of oxygen every day. Similarly, every adult is expiring 200 ml of carbon dioxide every minute, 12 L every hour, and 288 L every day in the atmosphere.

Trees are the source of oxygen, and the only source to clear carbon dioxide from the atmosphere. Yet, trees are vanishing at a very fast speed due to urbanization and development. Every month, our forest areas are shrinking. There is an urgent need to plant more trees in order to save our nature and mother earth. And as trees take time to grow, there needs to be at least one tree planted, per acre, and it must be well nurtured for it to impact the coming generation.

I have recently started a call to action through a web-based project. I began by encouraging my students, friends, and family members and relatives to plant at least one tree every ten years. Planting and nurturing a tree is a noble work. It gives satisfaction, mental peace, and a sense of well-being. Every time a tree is planted, I invite the gardener(s) to log on to my website, [www.abc123TREE.org](http://www.abc123TREE.org) and catalogue their tree's progress, as well as track other tree growth in their area.

I humbly request you to publish this message to get the word out, pushing your readers to also plant a tree each decade.

Yours,

Arborist Joe

**Directions: PART 1**

Read this letter below. Then, I want you to "name" the job of each paragraph.

Consider what the author's **point** was when writing to the editor of this fake newspaper?

The/date/here

What is this paragraph's job?  
*tell me the letter*

What is this paragraph's job?  
*problem*

What is this paragraph's job?  
*stuff cause of*

What is this paragraph's job?  
*solution*

What is this paragraph's job?  
*request*

**Directions: PART 2**

What do you notice about the "order" of the paragraphs?

*make since cause of one before*

**What is this paragraph's job?**

*tell me the letter*

*problem*

*stuff cause of*

*solution*

*request*

**What's do you notice about the order of the paragraphs?**

*make since cause of one before*

Figure 12: Kia's Deconstruction of a Letter of Request

## Multiliteracies

Scholarship focused on the development of an SFL metalanguage is often linked to the theory of multiliteracies. In 1996, a group of critical language and literacy scholars, the New London Group, collaborated with the goal of reconceptualizing literacy and literacy instruction. They located their work in both the rapid changes in globalization and technology as well as the transformation to multilingual and multicultural classrooms

as a result of globalization (New London Group, 1996). By compiling their collective research, they broadly focused on redefining literacy considering multiple postmodern issues: the internationalizing of English; the language resources students bring to multilingual classrooms; and the impact technology has had on making meaning in texts that are increasingly a mix of texts, hyperlinks, and images. With this foundation, they posited that the complexities of language and therefore literacy instruction, should move toward viewing literacy as *multiple*, or as they named their theory, *multiliteracies*.

Drawing on Halliday, the New London Group describe the language resources in each text as a complex reflection of political, ideological and technological language influences that shape the text's actual construction. To discuss these variations within and across texts, the New London Group conclude that "teachers and students need a language to describe the forms of meaning ... In other words, they need a metalanguage -- a language for talking about language, images, texts, and meaning-making interactions" (New London Group, 1996, p. 72).

There is little elaboration beyond this mention of an instructional metalanguage in the *Pedagogy of Multiliteracies* (New London Group, 1996). To develop a metalanguage that can account for the textual dimensions they describe, critical literacy scholars, including some members of the New London Group, argued that the current language theories informing language instruction, such as parts of speech grammar, lack the language resources needed to discuss texts. In order to discuss literacy as multiple, teachers need a metalanguage that can explain the interlocking functionality in texts, symbols, images, language systems and contexts (Luke, 2000; Williams, 2005; Cope &

Kalantzis, 2009). However, in suggesting students and teachers collectively build a metalanguage, the New London Group's message was also to encourage students to be active agents in their education, which they call pedagogical Design<sup>7</sup> (New London Group, 1996, p. 77). They conclude that in Designing their futures, students must be part of Designing their education and learning to control the language their education relies on is a democratic approach to this. To be an active agent in schooling, the New London Group suggests students need to be taught and encouraged to use a metalanguage to discuss the features of school language and texts. In Chapter Six, I discuss in depth how my students used SFL and GBP to inform a classroom metalanguage necessary to discuss the features of the scientific texts (recall Figure 5, field analysis on bats) as well as how to write a letter requesting information. To date, the major critique of multiliteracies language pedagogy is how little of it has been used beyond the theoretical explanation (Hillocks & Smith, 2003, p. 727).

#### Conclusion: Theoretical Framework

With the three SFL metafunctions to choose from and GBP as a resource to explain the relationship between genre and purpose, SFL and GBP serve as more robust language theories to support students in discussing the functions of language contributing to academic writing and language development. Schleppegrell (2007) echoes many SFL education scholars in regards to teaching students to understand language is also an issue of social justice. She states that “functional linguistics approaches to grammar that

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<sup>7</sup> Design is capitalized as it is a concept specific to the theory of multiliteracies. To be invested in learning, New London Group maintains a student must be active in the Design of their education.



highlight the meaning making role of language are demonstrating that a focus on the value and power of different language choices” (Schleppegrell, 2007, p. 122). She adds that “thinking in terms of the functional categories helps learners begin to see the larger systems in the language and the options they have for making choices from those systems in different contexts which carry so much value in their learning” (Schleppegrell, 2013 p. 165). Teachers who use SFL to inform their classrooms can unlock for students some aspects of text and text construction that may otherwise serve as barriers to student learning, especially students without access to academic registers and macrogenres outside of school. Schleppegrell (2007) reminds teachers and scholars that “many of the students in our schools rarely encounter ‘academic language’ outside of school, and students who have no opportunities to use academic language outside of school rarely just pick it up informally” (p. 126). She concludes:

Academic language development is challenging. But a better understanding of how the grammar—the systems and resources of the language—provides a range of options for meaning that respond to different contextual demands can enable more powerful support of students’ language development. Language is the most important resource for meaning in the context of schooling (Schleppegrell, 2007, p. 127).

Teachers can also use aspects of the theory to support content area literacy. SFL sets the foundation for teachers to discuss the dimensions of the texts that create knowledge in their disciplines and as impacted by the expectations of the academic environment and the specific content area goals as well (e.g. a historical analysis of an important figure versus a scientific lab report). Lemke (1988) concludes on the teachers he worked with that “...educators have begun to realize that the mastery of academic

subjects is the mastery of their specialized patterns of language use, and that language is the dominant medium through which these subjects are taught and students' mastery of them tested" (p. 81). SFL scholars argue that writing cannot be taught as a fixed or static structure, such as the open response, because even within the content area disciplines at schools, texts types and the academic language that supports them ebb and flow as the goals of the disciplines vary (Lemke, 1988; Schleppegrell, 2004; Martin, 1992).

Therefore, the belief behind using more dynamic language resources to discuss the language of school is to provide students functional metalinguistic resources. Unlike the ones Tally's uses (e.g. "clincher" or "adjective"), an SFL metalanguage allows students to discuss what the language is doing to support the text's purpose, the relationships represented between their written texts, cohesion and the expectations of a disciplinary context.

It is with these theories that I designed and implemented a language pedagogy in my classroom. SFL, GBP, multiliteracies and the curriculum cycle also frame the review of the literature, Chapter Three. There are exemplars in Chapter Three where teachers used aspects of SFL to inform language curriculums and teach students about the language that constructs the disciplinary literacies that make up most of their school days.

## CHAPTER 3

### THE POTENTIAL OF AN SFL BASED PEDAGOGY IN K-12 CONTEXTS. A REVIEW OF THE LITERATURE

#### Introduction

Content area subjects at school (math, history, science, world language, literature and composition) and their respective texts share specialized lexicons, or vocabulary, to construct their field content. Texts are defined broadly in functional language pedagogy research; a text is any spoken, print or multimodal representation of information constructing content. Disciplinary texts include textbooks, lectures, instructional videos, relevant journal articles, images, presentations, web sites and high stakes writing genres. There are also functional grammatical resources which support text development in the genres which construct the knowledge within each of the content area disciplines. Researchers who study the language that supports text development, or academic language, maintain that learning these lexical-grammatical resources will better support students in accessing disciplinary texts. For example, recall the scientific explanation in Chapter Two on bats and WNS (see Figure 5). To develop new scientific information about the development of a disease impacting hibernating bats, the texts relies on lexical and grammatical resources to achieve the genre of a scientific explanation. The information is developed through nominalization and the use extended nominal groups before a verb. Additionally, verbs in the text are restated as nouns (e.g. hibernate becomes hibernation). These are both grammatical resources used to add and develop abstract meanings to focal content. These patterns are also functional, as they allow the content to

build with grammatical resources designated to organize the content in an instructive way. The patterns support the purpose of the text as well; to teach an otherwise unknown concept by slowly adding information resulting in a scientific explanation. Yet, the instructed content is maintained through grammatical resources (Unsworth, 1999; Christie & Derewianka, 2008). As illustrated in Figure 5, I deconstructed this pattern for my students, highlighting the relationship between a scientific explanation and the grammar that supports it. I found this type of instruction a significant resource for developing disciplinary literacy, allowing my students to more fully participate in the fields of life and environmental science (see Chapter Six for more information on how my students responded to what they called “science language”).

Beginning with the work of the Sydney School in the 1980s (see Chapter Two for more information on the Sydney School), researcher and teacher teams have explored the potential of supporting academic language and writing instruction in the way I did with the text on WNS; with an SFL/GBP informed pedagogy. In their work, these teams aim to make the linguistic demands of content area texts more visible to students. When reviewing the literature to support my work, I sought to understand how other teachers have developed and taught SFL informed pedagogies. I also wanted to learn about how teachers use SFL and GBP in their classrooms to support students in reading, writing and analyzing the genres reflected in specific content areas and the respective disciplinary literacy.

### Criteria: Selection of Literature

To support my initial inquiries guiding this literature review, I began looking at research where teacher/research teams designed academic language pedagogies with theoretical components of both SFL and GBP. I developed a series of search terms to use with the online databases ERIC and Academic Search Premier. Searches were guided by a combination of the following search terms: Academic language pedagogy, systemic functional linguistics, SFL, Genre Based Pedagogy, GBP, critical language pedagogy, disciplinary language instruction, K-12 writing instruction and critical discourse analysis. Using these search terms or combinations thereof, I located a significant amount of available research. I then narrowed my criteria by research sites, limiting the research to articles where academic language and writing were taught in either primary or secondary school settings, and where the focus of the article was on a specific classroom setting or located in a few classrooms in the same school. This narrowing generated more focused trends: all of the articles included a teacher's experience; articles discussed how units were designed and implemented; and focal students in all of the included articles are K-12 aged students.

An important variant within the focal participants in my searches was the first language of the research participants. In some of the peer reviewed articles, the focal students are native English speakers (L1 English) while in others, the study took place in a separate classroom targeting English language development for ELLs (L2 English). Still in other studies, classrooms were a mix of L1 and L2 students. With the increasing multilingualism in US classrooms, including my own, I felt the dynamics of classroom

composition must be maintained when reviewing language pedagogy research. Some of the studies are situated in the United States, while others are located in primary and secondary schools in Great Britain, New Zealand and Australia. However, in all included studies, the target language is English.

As I refined my focal review questions, I began to exclude studies where the research questions strictly focused on an SFL linguistic analysis of disciplinary text types. I found multiple studies in the field of SFL educational scholarship where SFL was used as a tool to analyze texts with a full genre and register analysis, describing multiple features of texts teachers could teach and develop into a curriculum (Unsworth, 1999; Macken-Horarik, 2002; Derewianka, 1990; Christie & Derewianka, 2008). While valuable to the development of SFL based language pedagogies, these studies did not discuss how SFL and GBP were enacted in a classroom application, thus I eliminated them from this review of the literature.

There are some other important commonalities in my final article selection. First, all teacher/researcher teams relied on the tools of SFL in both instructional practices and as an analysis tool of student texts. Using SFL as a discourse analysis tool varied between researchers, but most used SFL to discuss language choices found in student writing, and some used SFL to respond to texts and identify relevant instructional language. As SFL is a theory within the qualitative methodological research traditions, all of the reviewed scholarship use qualitative research methodologies for design and implementation of the study (e.g Kamberelis & Dimitriadis, 2005; Dyson, 1993; Merriam, 2009). Most of the studies are qualitative case study research (Dyson & Genishi, 2005), ethnographic

research (Heath, 1983; Heath & Street, 2005; Davies, 1999) or design-based research (Anderson & Shattuck, 2012; Collins, Joseph, & Bielaczyc, 2004). Some of the studies also involved tools associated with teacher-as-researcher methodology (Cochran-Smith & Lytle, 1993), where the reflections and research memos written by the teachers were considered valuable data to include in the data corpus.

While teacher-as-researcher methods were not always named or implemented, across the literature, teachers were active participants in the all aspects of the research. All of the selected scholarship includes teacher/researcher teams which anchor the study and subsequent instruction within the existing curricular goals of the school site. Frequently in the methods section, the researcher describes these teams collaborating in advance so teachers could explain rationales behind their existing curriculums and subsequent lesson planning. In my analysis of these articles, I found the more collaboration in co-designing a unit plan with a focus on integrating language into content-area instruction generally resulted in more effective units that met the broader goals of the content. Gebhard, Chen and Britton (2014) describe this type of unit plan as a curricular unit, one that locates instruction within combination of both content and language curricular goals. Researchers using this curricular model, or a similar model, usually position the curricular unit as the unit of analysis for the research as well (e.g. Gebhard et. al, 2014; Gebhard et al., 2007; Pavlak, 2013).

When designing language pedagogies, researchers in the selected reviewed articles took other factors into account as well, such as number of students in class, first languages of students in the class, composite of student body, school's test scores, district

mission statements and the comfort levels of the teacher teaching with SFL

(Schleppegrell, 2013). On context selection and SFL based research, Schleppegrell (2013) suggests

Elements of context that influence design decisions include the instructional materials and participation structures already in place in the classrooms, the teachers' knowledge about language, the children's levels of proficiency in English, as well as institutional constraints imposed by district- or school-level policies. (Schleppegrell, 2013, p. 157)

These common elements across the selection were important for designing a focused review of the literature. They were also valuable when learning to design my qualitative case study using SFL based language pedagogy within my classroom, but still reflecting my school's overarching and existing curricular goals.

Table 1 is an outline of the final selected articles. I narrowed it by subjects taught (e.g. Science or English), the grade levels and the aspects of SFL which informed the research design. The last column summarizes which component(s) of academic literacy the teacher addressed (e.g. writing an argument on character change). Important to note, in the selected scholarship, there are various grade levels, school subjects and differing components of academic language and literacy that researchers and teachers used SFL to support academic literacy instruction. Such variety demonstrates how the expansive resources SFL can contribute to various pedagogical designs.



Table 1: Articles Included in the Review of the Literature

Article	School subjects addressed	Grade level(s)	SFL used for instructional unit design	Component of academic literacy and curriculum
1. Brisk (2012)	English Language Arts (ELA)	Grades 2-5	Genre as staged, genre as purposeful Audience	Literary analysis: Authorial “voice” in texts  Essay writing: high stakes genres
2. De Oliverira (2010)	History	Grades 6-12	Transitivity: non human participant, nominalization	Reading comprehension: historical texts
3. Early & DeCosta-Smith (2011)	College preparation	Grade 12	Genre as purposeful Audience Features	Essay writing: College admissions essays
4. Gebhard, Chen & Britton (2014)	English Language and Science	Grades 3-5	Transitivity as a function of scientific texts (specifically nominalization, grammar of participants, processes used to record) Genres as named by job Genres as staged Genre stages as named Genre as stable with options Genres as compared across purposes Temporal devices to support biographies Lexical chains & process types to control lexical cohesion	Three comprehensive content based literacy units focused on reading and writing:  1. Historical explanations 2. Biographies 3. Scientific writing
5. Gebhard, Harmen & Seger (2007)	English Language Arts (ELA)	Grade 4	Audience as an impact on genre Genres as named by job Genres as staged Genre stages as named Genre as stable with options Oral discourse markers	Essay writing: Letters to school principal

Article	School subjects addressed	Grade level(s)	SFL used for instructional unit design	Component of academic literacy and curriculum
6. Kamberelis (1999)	English Language Arts (ELA)	Grades K-2	Genres used to compare Impact of discussing stages of genres (metadiscourse)	Essay writing: high stakes genres 1. Narratives 2. Scientific explanations 3. Poetry
7. Macken-Horarik (2011)	English Language Arts (ELA)	Grade 12	Genres as connected to audience Genres as purposeful Re-voice Projection Language as choices	Essay writing: literary analysis of character change  Language: developing voice
8. Marshall (2006)	English Language Arts (ELA)	Grade 12	Transitivity: participant actors, process Nominalization “signal” words to help with coherence and argument maintenance Modal verbs Theme/Rheme Audience	Essay writing: literary analysis/themes in poetry
9. McDonald (2006)	English Language Arts (ELA)	Grade 8	Transitivity analysis: focus on circumstance	Essay writing: Literary analysis/treatment of gender in fiction
10. Moore & Schleppegrell (2014)	English Language Arts (ELA)	Grades 2-4	Transitivity: process (focus on delicacy of process types) Appraisal systems polarity	Story grammar/ studying elements of fiction: Character analysis
11. Pavlak (2013)	English Language Arts (ELA)	Grade 3	Genre as staged, genre as purposeful Temporal devices to support cohesion in biographies	Comprehensive content-based literary unit: Biographies
12. Schleppegrell (2013)	English Language Arts (ELA)	Grades 2-4	Genre as named Genres as staged Mood systems or “speech functions”	Writing: Character analysis

Article	School subjects addressed	Grade level(s)	SFL used for instructional unit design	Component of academic literacy and curriculum
13. Schlepppegrell, M., Achugar, M., & Oteiza (2004)	History	Grades 6-12	Transitivity Non human vs human participants Semantic categories for process types Conjunctions as meaningful	Reading comprehension: historical texts
14. Schlepppegrell, M., & de Oliveira, L. (2006)	History/Grades 6-12	Grades 6-12	Nominal groups as “dense” Reference devices Time makers as cohesion grammar	Reading comprehension: Features of history textbooks
15. Schlepppegrell, M., Greer, S. & Taylor, S. (2008).	History/Grade 8	Grades 6-12	Transitivity: participant actors, process Nominalization	Reading comprehension: Texts with cause and effect features
16. Schlepppegrell, Moore, Al-Adeimi, O’Hallaron, Palinscar, Symons (2014)	English Language Arts (ELA)	Grades 2-4	Genres as staged Genres as purposeful Circumstances of time/ place Processes that “say and do”	Writing: Character analysis
17. Unsworth (1999)	Science and history	Grades 6-12	Nominalization Text features as purposeful Audience: academic vs oral register Emotive language Agent-less passive voice Clause Clause complexity	Academic language
18. Williams (1998)	English Language Arts, Science	Grade 1, middle school	Transitivity: process (focus on delicacy of process types) Specifically: >verbal processes/ literature >relational processes/ scientific explanation	Reading comprehension: picture books  Reading comprehension: Scientific explanations of dinosaurs

Article	School subjects addressed	Grade level(s)	SFL used for instructional unit design	Component of academic literacy and curriculum
19. Williams (2000)	English Language Arts (ELA)	Middle school	Transitivity: participant actors, process, circumstance Clause types as purposeful Theme/Rheme Process type as meaningful Participant types (e.g. Actor, Sayer)	Reading analysis: Biases in texts
20. Williams (2005)	English Language Arts (ELA)	All grades (grammar club)	Transitivity: participant actors, process, circumstance Clause types as purposeful Relational/attributive process for math	Math: Responding to word problems  Reading comprehension: scientific explanations  Reading comprehension: Children's literature

### Presentation of the Literature

An analysis of the studies revealed four trends. Most significant was all teachers reported to using a version of a functional metalanguage in their instructional practices with their students. A metalanguage is explained in the literature as a language used in classrooms to discuss various components of academic literacy with students (New London Group, 1996; Macken-Horarik, 2002, 2008; Gebhard et al., 2014; Butt, Fahey, Feez, Spinks & Yallop, 2000). I have included multiple exemplars of how metalanguage was useful in a various classroom instructional practices in the first section of the review. The remaining sections of the review address the use of a functional metalanguage in classrooms, with a focus on specific aspects of the theory that named and used most often

in classrooms, and how teachers and student gravitated to certain themes in SFL to support writing instruction. For example, the second trend focused on how metalanguage was used to discuss aspects of genre. When developing curriculum, most teachers explained their initial curricular design by anchoring instructional practices in a target genre (e.g. scientific explanation). The findings suggested that metalanguage was often used to name the genre for what it was doing (e.g. explaining something about science) and then discussing with students the stable and optional moves (Hyland, 2004) or stages (Rose & Martin, 2012; Knapp & Watkins, 2006). Stages and moves<sup>8</sup> are explained as in the literature as components or “moves” in a text that are “staged” in a logical order to complete the purpose of the text and are used interchangeably. The third trend involved metalanguage and the register variable field. Studies suggest teachers were most apt to use the register variable field when teaching with SFL than any other register variable. The transitive system of the field variables participant, process and circumstance were used in a variety of instructional practices and contributed to the development of a metalanguage in many classrooms. The final trend was that cohesive grammar, or the register variable mode was often connected to a genre’s purpose. When teaching resources connected to cohesion, named cohesive devices, teachers found they were more likely to highlight the relationship between register language and genre, using the metalanguage of cohesive devices to explore this relationship with their students. In some instances, introducing students to cohesive language as an aspect of academic language was used to support reading comprehension as well.

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<sup>8</sup> In the literature, there is a slight variation for how authors discuss genre as staged versus genre as inherent with moves. In this review of the literature, I treat these words interchangeably.

## Theme #1

Of the 20 journal articles selected for this review, the use of SFL and GBP by students and teachers to name genre and register features of texts in a shared classroom metalanguage was included in every study. In some instances, the SFL language was an exact reflection of the theory; findings and methods sections highlighted students naming features such as verbal process (Williams, 1998; Schleppegrell et al., 2014), nominalization (Gebhard et al., 2014) or circumstance (McDonald, 2006). Yet in other scholarship, students and teachers renamed text features with their own shared and invented classroom metalanguage, such as “power language” or “action words” (Marshall, 2006) or “chunky participants” (Gebhard et al., 2014). In each instance, the metalanguage extended beyond more traditional grammar or surface-level grammar too. Instead, students and teachers named larger systems of language, such as “coherence” (Marshall, 2006) or “audience expectations” (Schleppegrell, 2013; Macken-Horarik, 2011) when discussing language choices and text purpose with their students. .... Metalanguage was used both in lessons focused on reading comprehension and guided writing instruction. As highlighted in Table 1, SFL metalinguistic development and language goals were usually in response to content area objectives. With language goals connected to a content area learning objective, developing a metalanguage in classrooms often began with breaking the instructional text(s) into clauses and using the clause breaks with students to observe, compare and discuss emergent patterns in the language of the focal text. Eggins (1999) explains the importance of the clause in any SFL analysis because “the clause is not just giving information; it is giving information about

something” (Eggins, 1999, p. 225). In a series of studies conducted in primary classrooms throughout an elementary school in Sydney, Williams (1998, 2000, 2005) worked with teachers and students to build metalinguistic instruction, or what he calls grammatics, discussing grammatical patterns with students. In each of his studies, he describes the start of language instruction by breaking a fictional text into clauses and asking students to discuss the clause breaks. Students are then prompted to observe and discuss if there were any relevant patterns across the clauses. Williams (2005) explains that clause breaks are useful when asking students to notice grammatical patterns, as clauses centralize the process (verb) and the remaining transitive variables respond to the process. Common grammatical patterns may be easier for students to observe when looking across clauses of a focal text linearly. With clausal analysis, Williams found even young students were able to use metalanguage to discuss transitive elements of clauses easily, no matter the text or book he chose (Williams, 2005). He also explained that due to this consistent starting exercise with clause breaks, students began to “...discuss elements of clauses, rather than members of classes, with the process foregrounded as the center of a clause...” (Williams, 2005, p. 293). Looking at clauses this way represents an important aspect distinction in SFL instruction, a shift to looking at the grammar “above the text” (Thompson, 2000, p. 99) rather than naming word classes on a sentence level (e.g. noun, verb, preposition). Clause analysis and subsequent functional metalanguage supported students in making claims about how language functioned in and across the content area texts to make meaning.

Metalanguage was also a resource to discuss and analyze features of informational texts. In Schleppegrell's large scale SFL based professional development with teachers named the California History Project (CHP), her professional development/research team worked with history and ELL teachers in California to develop useful curricular resources to develop language learning goals as part of curricular design. In particular, the teacher professional development highlighted for teachers the language systems typically found in constructing historical texts. Instruction began with guiding teachers to observe and discuss transitivity patterns in historical texts. At first, the texts broken into clauses, and teachers were taught the basic transitive pattern of clauses: participant, process, circumstance. After breaking down the variations of participant, process and circumstances in each clause, teachers began to name this metalinguistically, calling it "sentence chunking" (Schleppegrell & de Oliveira, 2006). Teachers would look across the texts and track participants or circumstances, and began to make claims as to how these field components work in historical texts, and why. In more difficult historical texts, the teachers used this metalanguage of "sentence chunking" to discuss more complex transitive patterns, naming each "chunk" of the sentence functionally in the clause. After instruction on the basics of a transitive analysis, Schleppegrell and de Oliveira (2006) concluded that by developing a metalanguage with the teachers and modeling the ways to discuss an author's language choices, the teachers were able to transition to viewing the "larger constituents of the clause...and not individual words..." (p. 259). With only a small amount of SFL instruction on clause breaks and transitivity, history teachers also reported understanding and discussing language in this



way was helpful for understanding of historical texts and something unprecedented in their teacher education programs (Schleppegrell & de Oliveira, 2006, p. 261). Some noted they began instructing with metalanguage that reflected transitivity grammar almost immediately (Schleppegrell & de Oliveira, 2006, p. 263). A few months after the study in follow up interviews with Schleppegrell and de Oliveira, history teachers explained that their middle school students were able to answer and respond more critically to the content of historical texts when they were able to discuss aspects of them.

One teacher explained:

Using metalanguage to discuss transitive patterns allowed students to further understand how democracy developed, the process of democracy, because they understood why the colonists were upset, how the colonists reacted against King George and how King George reacted against them...it really put the participants in center stage, acting and reacting with one another (Schleppegrell & de Oliveira, 2006, p. 261).

Metalanguage was also used to name audience expectations. For example, in a study with advanced high school English students, the teacher arranged an opportunity for her high school students to submit essays to graduate students at the local university studying comparative literature (Macken-Horarik, 2010). The students and their teacher used an SFL metalanguage to discuss the impact on their writing and language choices when they faced an unknown audience of advanced literary critics. This naming practice began as they deconstructed the genre of literary criticism. They discussed it as a complex genre, one that relies on varied options in moves: an author's position; an in-depth summary of an aspect of literature; a possible discussion of the theme; and the genre move of a critique about literature, with the possibility of highlighting an issue with

a novel to take on in writing. The students were encouraged to consider this audience as one who reflected both common and disparate values as them, and yet with expectations formed by their extensive reading of both literature and literary critiques.

Metalinguistic resources were initially used to describe what was expected by this unknown and professional audience: what the audience would expect in a literary critique and what genre stages may be dismissed if included. The teacher asked her students to name how factors, such as values and an academic culture, ultimately control one's personal stance toward literature. These poles of expectation were then named and connected to each high school student's initial text construction, genre stages named based on audience expectations.

Instruction then focused the students on discussing and naming aspects of heteroglossia, or the idea that when developing one's voice, an author could potentially create the presence of two or more voices or expressed viewpoints in one text (Matusov, 2007; Bazerman, 2005). Since the high school students had already developed a metalanguage to discuss an audience's expectations, they built on this language to discuss the way more advanced audiences, such as graduate students, may require in order for them to appear credible. They concluded the graduate students may have preformed and the negative expectations of heteroglossia when reading secondary students' texts. The teacher encouraged them to consider how this negative position could impact their authenticity in voicing. She also discussed with them how they could predict and respond to these negative exceptions by using grammar to control this heteroglossic projecting in

their voice on a topic, concurrently allowing them to then develop a more unique argument.

The high school teacher explained to Macken-Horarik in a post-study interview that having a professional audience made discussing language choices easier, which she found useful when encouraging her students to develop a their own voice when critiquing literature. By the end of the course, the teacher explained that her students could identify, name and use grammars of voicing in their writing and when talking about approaches to writing. Together, they concluded because of this naming of the audience, students could discuss “exploiting the potential of projection for embedding and for complex iterations of voice and stance” (p. 133). The students reported to having a way to discuss authorship and the academic language supported their understanding of the genre of literary analysis on this advanced level and allowed them to develop a voice that was more independent and authoritative rather than mimicked.

There were other studies where the development of a classroom metalanguage was a resource used to name the relationship between tenor and audience, significant resources in building a foundation of students’ abilities to discuss academic writing. Recall the tenor variable in SFL accounts for the mood of the text, which is constructed through the syntax choices in clauses, the appraisal system and the polarity and modality applied to the finite verb. In a set of two studies from the same research site (Schleppegrell, 2013; Moore & Schleppegrell, 2014), teachers began using an SFL metalanguage with elementary school students as a resource to discuss tenor variables, specifically mood systems and systems of appraisal. Students began discussing language

choices with the instruction that they were the audience for children's literature and that certain grammatical features in texts were purposefully used to instruct them or even to protect them. The teachers began with clause breaks on a children's book about characters learning general community rules. The focus of the book was how characters changed when they learned to ascribe to rules of the community (e.g. waiting for the crossing guard to alert them to crossing the street). The teacher highlighted a mood system of declarative and imperative clausal construction and tied this syntax pattern to the content focus; learning the rules. She explained that in a book about characters who needed to learn rules, the author relied on declarative and imperative clausal organization, as these types of grammar realize the affirmative. However, the students did not adopt Halliday's SFL metalanguage of clausal construction and mood systems, such as declarative and imperative. Rather, students and teachers together named them "speech functions" (Moore & Schleppegrell, 2014). The way someone in the story "speaks" had a function, or, a speech function. Students began explaining sentence grammar as functional, concluding that the way a clause is syntactically organized reflects how a message gets delivered. This syntax and subsequent message delivery had an impact on how the characters responded in the story too. Tying it to themselves as an audience, some students also concluded this book was intended to teach them rules of the local community, and therefore, the clauses were grammatically organized around instructing them with the declarative or the imperative syntax (Schleppegrell, 2013, p. 161).

As these students continued to consider themselves the audience for the books they read, it was the appraisal and mood systems in the stories that both the students and

their teachers used metalanguage to discuss. While the initial instructional goals had been to assist students in recognizing how different types of sentences satisfied different jobs in texts, an extension of this goal was that the sentence types may also vary based on the audience. To accomplish this, the teacher focused on the manner in which the police officer spoke about the community rules in the book. The teacher explained that while the officer spoke in commands, the children in the book only asked questions of the adults in the story. The teacher created a chart for the students to not only see the differences in sentence structure, but to name the different “speech functions” as well. Police officers do not use questions when teaching children; but children use questions when learning rules. This metalanguage carried over to class discussions on writing instruction. In follow up lessons, students wrote on how a character changed in the story once they learned the rules of the community. Students explained that their clauses should be organized grammatically in the same manner as the text is organized. Students explained to the researchers and their teachers that they needed to write with declarative clauses to prove to their audience that the main character changed once he learned the rules. They reasoned to their teacher that they needed the “speech function” of declarative clauses in their own writing to prove these rules were mastered by the character (Schleppegrell, 2013, p.164).

With this same class of elementary students, in another study, Moore and Schleppegrell (2014) also described how students responded to metalanguage and language instruction when analyzing and discussing language choices in children’s literature. Building on the metalanguage of speech functions, the teacher/researcher team

developed a new unit with language objectives focused on how fiction authors develop a character. This unit reflected the school's existing curriculum, both in content and language learning, as the language goals focused students on reading comprehensively by isolating out an element of fiction, such as characterization. The focal teacher in the study discussed with her students that authors use special techniques to create a character. Instruction focused students on two types of characterization techniques used in fiction: direct and indirect. Direct characterization is when the author directly provides information about a character. For example:

*The young girl always worried and twirled her brown hair around her finger as a nervous habit.* In this example, the author has given the reader direct character traits of a character, which are underlined.

However, in more advanced children's fiction, authors begin to create character with more indirect characterization by putting the character in conversations, allowing the reader to participate in the character's thoughts and feelings as the character engages in a conversations and exchanges. For example:

*"I am not just an average 8 year old" she screamed nervously as she began to twirl her hair around her finger to comfort herself.*

In this example, the reader learns more about the character through her dialogue and actions, or indirect characterization. Characterization in this example is also underlined.

In this study, the teachers tied their content goals (elements of fiction) to language goals. With guidance, students began to infer characters' feelings and thoughts as relevant

aspects of conversations when analyzing the verbal processes characters used in communication: *said, hear, considered, yelled*. Students then placed these characters on what the students named “a line based on their attitudes” (Moore & Schleppegrell, 2014). Naming a feature of fiction texts is an example of how students invented a metalinguistic system to discuss an element of fiction when instruction was designed around an appraisal framework, connecting the attitudinal line students invented to using language analysis to discuss characters’ emotions and traits. Students were also able to discuss the indirect characterization of certain characters based on the process choices the author chose, such as *loved* and *felt anxious*, as those that demonstrated a character’s attitude. .... During subsequent instruction around direct characterization, students were taught to highlight instances where they, as the audience, were given more direct language portraying the character’s attitudes. They concluded this type of more direct language is used when the author felt the students (or the readers) needed more information about a character. Language used in direct characterization was also named as a resource for when the author had to tell the audience more about a character, ones that indirect characterization techniques (conversations, thoughts or character actions) could not account for. In this study in particular, there is evidence of a metalanguage extending beyond the theoretical register variables described in field, tenor and mode use to discuss texts. Students were responding and discussing the language systems used in fiction to explain discipline specific content goal related to English Language Arts by using metalanguage.

When describing this type of SFL metalanguage in content area teaching, Butt et al., (2000) conclude “a specialized language allows us to explore texts by describing how different elements function to realize experiential, interpersonal and textual meanings...indeed, intertextual comparison cannot go very far without a specialized vocabulary...” (Butt et al., 2000, p. 8). Lemke furthers that “if semantic patterns represent the heart of every academic subject, then we must learn how to describe them, how to embed them in the discourse of teaching” (Lemke, 1988, p. 84). The researchers on these studies often comment on the value of having a shared language with students to discuss text construction and their academic literacy practices. Fang and Schleppegrell (2008) conclude this kind of metalanguage serves as a critical shared linguistic medium between teachers and students, as it “provide[s] strategies for talking about language and text that respond to the goals and purposes of each subject and offers teachers and students new ways of engaging with the text” (p. 8).

## Theme #2

The second trend in the literature was that when designing instruction, teachers often begin by anchoring the instructional unit in a focal genre for students to both read and write. Of the 20 articles included in this review, 13 of the studies begin their work by anchoring instruction in a specific genre (e.g. the argument genre) or a collection of genres (e.g. biography, science report, personal narrative, argument). In most of these studies, teachers and researchers anchor initial unit design within a target genre identified as important to focal students’ current context. The target genres were named around what the text does purposefully (e.g. explain, argue, describe, narrate). Genres were often



taught to students by deconstructing models or representative texts and then breaking them into stages based on what each aspect of the text was contributing to the purpose of the genre. This analysis was done with students so they could learn more about the genres that construct the focal field's information, highlighting purposeful and optional stages available within certain genres and tying these stages to the expectations of the audience and the text's purpose. Naming the genre for what it's function (e.g. argument), the text's purpose and the recipient audience were routinely included in classroom metalanguages in many of these studies as well.

In these 13 articles primarily focused on genre, writing instruction was anchored in learning to write in a unit's target genre. In these unit plans, the genres of focus were usually considered high stakes writing, or macrogenres, as referenced in Chapter Two. Macrogenres are the overarching genres that students are asked to routinely participate in at school: narratives, arguments, explanations (Coffin, 2006). These macrogenres are also frequently tied to assessment (Martin & Rose, 2008). While this type of outcome based instruction is in contrast with sociocultural theory (SCT) and SFL, Schleppegrell et al. (2014) claim teaching these high stakes school genres as important, despite their use for testing purposes. They are central beliefs to schools, or the context of culture, and these are beliefs that are enacted and highly valued in most public school curriculums. These high stakes genres are also institutional gate keepers; high school graduation and college admissions hinges on a student's performance of these genres (Martin & Rose, 2008). Researchers must respond instead with a critical lens to develop useful and expansive writing instruction (Schleppegrell et al., 2014).

When teaching genre to students, authentic audiences proved as an excellent resource for helping students to discuss the purpose of the text as a reflection of audience expectations. Gebhard, Harman and Seger (2007) worked with a teacher on a unit where students were writing persuasive letters to the school's principal to argue for their recess back after it had been taken away for various reasons. Purpose and audience were intertwined when naming the genre as writing an "argument" as it engaged the students in an issue important to them. After taking a position that they wanted their recess back, students drafted texts, the teacher allowing natural oral discourse patterns, images and slogans in the first drafts, capturing their position on the school's decision to take away their recess. Then, with their teacher's guidance, students deconstructed expert texts that were also named as arguments and labeled genre moves that expert writers used. This process contributed to evolving a metalanguage used to describe genre as staged, which reflected the information they felt their audience needed: a thesis, supporting arguments, counter-arguments and a re-evaluation of main position (Gebhard et al., 2007, p. 424). Moreover, naming the stages supported these students to scaffold their second drafts. The represents phase 2 of the curriculum cycle, joint construction, which will be addressed in detail later in this review. Students began by stating a position, or the argument stage of their letters, as deserving their recess returned to them. With such focused positions stated, this initiated inquiry; students began examining outside research on the merits and importance of having recess into an elementary student's daily schedule. As the study evolved, the teacher reflected on the teaching genre as staged, stating that she "wanted [her] students to notice that in making an argument in an academic text, authors often

acknowledge multiple points of view and then take a stance” (Gebhard et al., 2007, p. 424).

Students composed and finalized multi-paragraph letters to their school principal and delivered their letters to her. The principal asked the teacher to write back to the class on her behalf, granting students back some of their recess. This continuation of communication between students and staff afforded classroom discussion on the relationship between language choices, genre stages and audience; that an authentic audience, especially a person in power, needed certain criteria in a letter format to be convinced by their arguments. The teacher was able to reiterate to students how the specific choices in language and genre stages helped to position them better in achieving their goal.

A similar study conducted at the college level also demonstrated the power writers have with an authentic audience. This study focused on writing college admission essays (Early & De Costa-Smith, 2011). When this research team gained permission to work with high school seniors attending a high school described as one where most students were “unfamiliar with the college admissions process” (Early & De Costa-Smith, 2011, p. 300), the research team wanted to provide instruction on writing a college essay. The team began by discussing with students the genre of a college admission essay, and expectations of the audience, a college admissions team. However, the team quickly realized that the involved processes of college admissions were relatively unfamiliar to these students and that “simply telling students to write for the appropriate audience, in which students were asked to consider the unfamiliar audience of college admission

officers, was not effective” (Early & De Costa-Smith, 2011, p. 302). This lack of access to a context that frames college admissions made explaining a genre so linked and reflective of the overall college admissions process difficult for these students to conceptualize.

To address this issue, the research team invited a group of college admission officers from a local university to come speak to the students about admissions. The college admissions officers provided students with a series of successful essays from the past few years. After reading these model texts, students were invited to ask admissions officers questions about the expectations of college essays they had from their professional experiences reading admissions essays. The admissions team discussed particular genre moves and register language they valued, such as clear topic statements, quotes with explanations and essay content that reflected the prompt. They also highlighted how applicants should include some insight at the end of their essay rather than a restatement of the original argument. The admissions officers suggested an option for students was to reflect on their aspirations for going to the focal college in the essay, or more broadly, what they would want a particular admissions team to take away from their essay as a final thought. They also discussed why these moves supported the college admission process.

After this visit with the admissions’ officers, the follow up instruction was then built upon an analysis of 50 successful college admission essays and feedback from the admission team. By analyzing the generic features that were privileged in successful college admission essays, the research team introduced a “features based

curriculum” (Early & De Costa-Smith, 2011, p. 303). The instructional goals were to teach the genre and language features privileged in successful college admissions essays, both the stable and optional moves. This instruction team designed ten 45-minute lessons focused on the interaction between the features and audience expectations as a framework to support students in writing their own essays. Researchers provided instruction over the course of six weeks that involved “explicit teaching, modeling, and practicing of particular written features connected to the college admission genre” (Early & De Costa-Smith, 2011, p. 303). Students reported in post-interviews that while this instruction was helpful, it was meeting the admissions officers that demystified their understanding of writing for college admissions. Findings suggest having the opportunity to discuss texts and expectations with the admissions team promoted self-confidence and efficacy in the students’ writing their admission essays (Early & De Costa-Smith, 2011, p. 311).

There was also research that addressed instructional practices when the audience was abstract or even unknown. In these instances, the unknown audience served as a resource for the development of using language in the text to support an unknown reader through one’s writing. For example, Pavlak (2013), worked with an third grade teacher in an elementary school to design a unit on reading and writing biographies, or what the school called a “multi-text” project for third graders in ELL programming. The school had an existing curricular unit on biographies where students were required to read a set series of biographies and then write up a biography of any high interest famous person they chose. Using the curriculum cycle, the teacher deconstructed some of the school’s assigned biographies with her students. Students were encouraged to name the stages they

identified when deconstructing biographies. After reading the selected set of biographies that made up the multi text unit with their teacher, students were encouraged to rename the stable and optional stages they saw across them. The teacher asked her students to consider what someone would need to know if they were unfamiliar with the person of focus, and to organize the stages in response to teaching a reader to understand the life of this important a person. Students agreed to take this uninformed audience into consideration when organizing their texts and named the potential text stages based on audience need. The teacher, with the help of her students, finalized and posted a list of genre moves on the blackboard to provide a visual to help organize student writing on the lives of historical figures. The final list of moves as determined and named by the students was: early in life, later in life and why this person is remembered (Pavlak, 2013, p. 409).

Each student chose someone famous to write a focal biography on and set up their biographies based on the agreed upon moves the class had named. When using these moves to guide and organize their biographies, the teacher explained it created a more focused research agenda for students. Students were able to gather relevant information when researching their focal person based on the information they knew in advance would help someone else learn about someone's biographical history. As the instructors found when working with admissions essays, this teacher also expressed that her students were far more independent and confident when drafting their work than they had been previously. She credited their independence in drafting biographies to their genre knowledge of text type, useful to them in getting organized. With more clarity on the

facts, students were searching for more information to complete their drafts. With this, students were using more field language in their writing. Therefore, an unexpected finding in this research was that the lexico-grammatical choices students used in their writing also expanded. Students were more prepared to use field specific vocabulary due to the preparation and focused research of their focal biographical study and biographical write up.

The genre instruction highlighted in this literature, instruction that includes students naming stabilities and optional stages in focal genres based on purpose and audience is a paradigm shift away from the way schools and high stakes curriculums present and name text structures as stable and fixed. Consider the open response at my school. Students were not making decisions about text construction because the stages of their texts were pre-constructed for them. Brisk (2012) and Schleppegrell et al. (2014) both reflect on limitations of pre-set writing structures such as this. Both researchers encountered schools with curricula focused on fixed genres and assessment which made their work of introducing a critical view of genres and texts as functionally stable with some variations difficult. When Brisk (2012) was working with second, third, fourth and Sheltered English Instruction (SEI) teachers in an elementary school, the teachers identified an existing instructional language goal in advance that all students in this school were to master of identifying the author's voice. This language goal required students to identify first and third person applications of authorial voice in texts. They explained this instructional goal was an existing part of their already mandated curriculum and one that had to be taught at all grade levels. To further complicate Brisk's

research, in addition to the preset language goal, the school's curriculum also included a list of assigned genres to teach across grades: personal recounts, historical recounts, procedures, reports and expositions (Brisk, 2012, p. 453). It was within these genres that the curriculum coordinator wanted students to identify and name the author's voice in each text. In the findings and subsequent discussion, Brisk concludes that a writing curriculum with this many genres, all tied to only one language goal, ultimately complicated defining genres as situationally based. Brisk's team presented texts with variation based on purpose, but for students and teachers new to GBP, this was confusing given the number of genres students were expected to exhibit mastery. Brisk honored the realities of the school's learning goals and anchored her research in teaching voice through these high stakes genres. Her findings describe the shortcomings that can present in developing a more useful language pedagogy, one that can build on genre instruction between one unit and the next, when such rigid curricular mainstays such as multiple genres are to be taught for strict assessment and mastery.

Schleppegrell et al. (2014) also report having a similar struggle with professional development for teachers when introducing them to genre as staged. This research team, in response to an elementary school's request for more help with standardized writing, created what they named an "antecedent" genre. This type of writing was as purposefully hybridized, to bridge students from the genre of a recount of a story to an argument genre focused on a character analysis. However, they realized by creating such strict genre moves, even though it was an effort to bridge students from a familiar genre to less familiar one, left some students unable to take risks and discuss other aspects of



characters in this analysis. This team also found even when focused on a common aspect of literature, such as analyzing a character, the content about characters was so vast between different stories with different characters, that defining a “character analysis” or antecedent genre became quite similar to a pre-fixed genre worksheet. They state:

The central tension here is between that of the competing purposes of the *recount* genre and our own pedagogical ones. The recount genre is focused on important *events* that are relevant to a topic and the evaluation of them, which involves discussing why those events deepen or complicate one’s understanding of a particular topic ...in preparing students for *character analysis*, we attempted to shift the focus of the recount genre onto the characters. This tension highlights the importance of closely considering the overall social purposes of the antecedent genre as well as the target genre, carefully considering the ways they are complementary and what kind of variation each supports. (Schleppegrell et al., 2014)

Despite the complications that can present with distinguishing critical genre instruction from the more fixed and behaviorist practice of teaching writing, research by Kamberelis (1999), who conducted a multiyear study on genre instruction in K-2 classrooms, concluded students have an easier time discussing and writing in genres when their teachers discussed and named aspects of genre often, termed meta-discourse (p. 444). Meta-discourse, similar to metalanguage, is the “analytic language used to talk about language and texts: setting, plot, category, comparison, meter, metaphor and parts of genres...” (p. 444). He found narratives were easiest for the children to write with variety and describe with the features of meta-discourse because it was the most routine genre used in their school day. The teachers in the study substantiated this finding, as they found narrative writing was the most familiar to them as well. This finding substantiates the findings of Brisk (2012) and Schleppegrell (2013); by discussing genre rather than

fixing the stages of writing in advance, Kamberleis found students knew more about the options and stabilities of the text type. Students could also “differentiate between genres categorically” as they had “developed explicit knowledge of many of the structural features required in stories” (Kamberelis, 199, p. 422) due to their teachers’ meta-discursive discussions of language and text features of the narrative genres.

Two important trends surfaced in this subset of the literature on critical genre instruction. Teachers concluded students were more independent with writing when genre knowledge was instructed, expert texts deconstructed and when metalanguage about genre was included as a salient component of class discussion. They explained that their students were able to organize information and research for more content when they had a sense of the types of texts they were being asked to produce. Teachers also discussed the interconnection between content and genre stages. While teaching the stabilities of genre stages were important for genre knowledge, students had differing opinions, life experiences and responses to the content. Therefore, genre variety was the result. Fixing genre stages was tempting for many teachers in these studies, as I have also found in my experience teaching under the GBP model as well. However, there is an important criticality and necessary development in students as writers and thinkers when they are asked to make decisions about the stages of their texts based on their own genre knowledge, text purpose and audience, focal content and prior experiences with language.

### Theme #3

The third trend in the literature was focused on teachers use of the register variable field. Recall that a field analysis provides information on transitivity, or the

grammatical pattern that explains who or what is doing what to whom in a text. When teaching how transitivity grammar constructs meaning in text, teachers in these studies usually begin by introducing their students to some variation of the field register variables: recall *participant*, (noun or noun group) *process* (verb or verbal group) *and* *circumstance* (object+prepositional phrase or object+adverbial phrase). With these resources, students and teachers begin to answer questions about content and text construction by describing the transitive patterns in the text and for what the grammar is doing: a participant, engaged in a process and resulting in a circumstance.

While many studies reviewed included teachers using field register variables in a transitive analysis as a foundational way to discuss text features across clauses for the purposes of learning about how language functions (e.g. Williams, 2000), other focal teachers began by teaching field variables for discussing aspects of text (e.g Gebhard et. al, 2014; Marshall, 2006; McDonald, 2006). For example, teachers may begin with a focus on the categories of the verbal process. Recall, discussing more specific field and content functions of analysis within the field register variable is called grammatical delicacy. In the a delicacy analysis, the participant, process and circumstance can be broken down further into “delicate” meaning making categories. In the scientific explanation on bats in Chapter Two, Figure 5, I discussed how the process could be broken down into five delicate categories: material processes or verbs that materialize (e.g. jump, run, cook); relational processes, or verbs that directly relate a participant to a process (is, will be, becomes); behavioral processes or verbs that capture human behavior (e.g. cry, overreact); verbal processes or verbs that account for spoken language (e.g.

said, screamed, whispered); and mental processes, or verbs that indicate what happens in the mind (e.g. think, consider, contemplate). Halliday's rationale for further breaking field constituents into delicacy patterns is due to the power of the process in the clause (Halliday, 2004, p. 6). Within each clause, the process carries both content as well as extensive information about the clause: negation, tense, polarity and possibility. When broken down to a delicate level, processes have corresponding participants and circumstances to support the verb's many meanings and roles in the clause, as well as connect back up a rank to the way the text's content is represented in the overall clause. Teachers in the selected studies were not only able to discuss transitivity with their students but were able to teach students about the rank level below the clause, where students looked at word groupings and labeled transitive delicacy on participants, processes and circumstances. Table 2 demonstrates how participants and circumstances are labeled in transitive delicacy analyses.

Table 2: Grammatical Delicacy within Field Register Variable

Process type	Corresponding participant	Corresponding circumstance
<b>Material</b>	Actor	Goal
<b>Relational</b>	Carrier/Attribute	Token/Value
<b>Behavioral</b>	Behaver	Behavior/Range
<b>Verbal</b>	Sayer/Receiver	Verbiage
<b>Mental</b>	Senser	Phenomenon

In a study with first graders highlighting instruction on delicacy within the process and transitivity analysis (Williams, 1998), the instructional focus was on how characters in a fictional story use verbal processes; to either express feelings about the

setting, other characters, or situational factors in a story. The teacher in the study designed lessons to introduce her students to processes, or verbs, by highlighting the verbal processes in a well known children's book that students were most likely familiar with in advance. With a delicacy analysis, students were able to grasp that human participants, or sayers, could *grunt* and *squeal* as ways to describe they were saying something in a particular way. However, in this text, the participants who *grunted* were also determined to be unhappy, while the characters who *squealed* were expressing victory. Students used the meaning made in verbal processes to distinguish each respective character's feelings and traits. Williams (1998) suggests this level of metalanguage with grammatical delicacy is possible even with young children. The focal teacher in the study found instructing the process into delicacy underscored students' understanding of character development and subsequently, reading comprehension in fictional texts.

Schleppegrell (2013) also observed that students were able to discuss the elements of fiction with delicacy analysis of classroom literature. In this study, as discussed in a previous section of this chapter, Schleppegrell (2013) responded to a school's request to help develop a writing pedagogy to teach a high stakes macrogenre, the argument, by designing an antecedent bridge genre to combine the recount genre with a character analysis that required students to argue a character changed in the text. This argument genre specifically needed to state a student's position the way a character in a text underwent change. The school outlined their requirements for the research team: to

develop a framework to analyze a character from a children's book and write an argument about the character's changes.

The teacher/researcher team members began using a transitive analysis with the students to analyze character development and character actions in fictional texts. The teacher found her students could analyze process types easily, particularly if the character were engaged in dialogue. Schleppegrell (2013) explains that "when using the metalanguage of *processes* of different kinds, learners can talk about how an author shows with *doing (material)* processes and tells with *sensing* and *being (relational)* processes" (p.165, emphasis retained from original). Teachers felt this transitive analysis helped their students discern process, infer a character's indirect traits as well as a character's change, content necessary when constructing an argument on this genre. Schleppegrell (2013) also found when metalanguage focused on delicacy, it supported students in a deeper understanding the genre, as "teachers report that use of metalanguage of process types has been very productive in their discussions about characters and how they change and develop over a text" (p. 164). Student writers were also described as more engaged in language as a system of choices, selecting processes carefully when articulating a character did or did not change. Teachers also found in their own teaching that "with sensitivity to the notion of processes of different types, children can engage in discussion about the language choices an author makes and then think about their own language choices" (Schleppegrell, 2013, p. 164).

In other studies, transitivity instruction was used with a critical lens, instruction focused on uncovering agency and bias in classroom texts. Williams (2000) worked as

part of a teacher-researcher team in a 1st/2nd grade classroom. The ongoing instructional goal for students was to read fiction books independently, and the teacher frequently modeled for students how to interact with a text in their heads during their own independent reading. This was a central aspect of the classroom lessons and culture. The teacher used a familiar children's book and broke the text into clauses for her students. Students were asked to compare participants, process and circumstances across clauses. They were then guided to observe and discuss what was happening between the characters in these clauses and exchanges. In these discussions, the teacher and her students looked closely at grammatical delicacy to observe the patterns between participants and circumstances. Participants and processes, like process types, can also be broken into delicate patterns. An actor and a goal are more specific ways to discuss a participant and a circumstance, respectively, when in clauses with a material process (see Table 2 for more information on delicate levels of field). As these students compared grammatical patterns across clauses, they were able to identify repetition in material processes in clauses when the mother character in their focal text was the actor (participant). This analysis became important to the students in the class, as this particular part of a story focused on a woman working. Beyond this process analysis, students in this study also began to connect other participants and circumstances to this woman's work throughout the story. They expressed concern that when the actor (participant) in the clause was the mother, it was usually followed by material processes and goal (circumstance) focused on the home. Yet the father and sons did not do any work in clauses where they were sayers, or participants connected to verbal processes. In these

instances, the father and son were more apt to use verbal processes, each time telling the mother what to do in with verbiage, or the spoken circumstance. Students noted “a pattern in the goals was that all the women’s goals in the story were to do housework,” and also that “the two sons didn’t have any goals, they just talked to the mother in a not very nice way” (Williams, 2000, p. 126). Students concluded from a series of transitive analyses that gender biases may exist in children's literature. They were encouraged to use transitive grammatical analysis and to continue to look for other aspects of these biases in their independent reading books (Williams, 2000, p. 128).

In a study similar to Williams’ work with elementary school students, (1998, 2000 & 2005), McDonald (2006) worked with middle school students to critically analyze literature with female protagonists. The selected texts included short stories and novels from different eras, each one with a heroine. This ethnographic research describes the evolution of a classroom metalanguage as students began to discuss the intersection of transitive systems and criticality in literature. Students were asked to analyze the selected texts for language promoting issues of gender by using clause analysis and discussing field variables. While the teacher engaged students in an overall transitive analysis, the students in the course developed a particular interest in discussing the circumstance. McDonald (2006) explains that it was the specific analysis of women in the circumstance where these students felt the story was somewhat devastating for female characters. For example, students noted the women in multiple stories are often “lost in thought,” (p. 243) described with a series of mental processes. Students also observed that clauses with a heroine participant were often followed with feminine



leaning circumstances, such “in the mirror” and “with her lipstick” (McDonald, 2006, p. 243). Students concluded this was a problem for women in the texts from all time periods, noting this ongoing issue of an overly feminine leaning circumstance, eventually without a formal transitive analysis. The students concluded in some instances, this feminist slant in the circumstance may leave readers with an “ending” impression of women as “foolish or shallow” (p. 243). Grammatically, as a circumstance usually falls at the end of a clause, students expressed that readers may never develop a more dimensional view of women in literature if each clause or sentence ends with gender biases.

There were other instances in the studies where students connected the field choices of authors and language that was manipulating a reader or a student audience. In one of many articles to come out of the CHP study, de Oliveira (2010) explains how a transitive analysis of history texts can uncover similar issues connected with field choices, audience and truth. In her work with history teachers, the teachers were instructed to observe the types of participants in historical texts and the participant patterns across clauses. If the subject is repeatedly non-human and rather recast as *The Third Reich* or *The United States Congress*, one could conclude that the author may be avoiding the harder truths about who (participant) did (process) something to whom (circumstance). de Oliveira (2010) describes “...removing agency from human actors...” and using “non human participants doing things downplays the horrors of human decision making in history” (p. 195). CHP teachers report to including this agentive analysis in their instruction as well, asking their students to identify banal and safer language choices

used throughout their history textbooks as possible instances of irresponsible reporting or avoiding the truth. Schleppegrell, Achugar & Oteíza (2004) explain:

Many texts present a series of historical events, so identifying action verbs helps students see the progression of history as the historians have constructed it. Analyzing the agents and receivers of actions helps them think about power relationships in those events. (Schleppegrell, Achugar & Oteíza, 2004, p. 87).

Other studies explored the grammar resources of field that account for rearranging parts of the content, either grammatically or lexically. There were instances in the literature where students discussed nominal groups, nominalization and grammatical metaphor. Gebhard et al. (2014), worked with a teacher and her class of ELL elementary students on developing an instructional unit on high stakes non-fiction genres. Using the school's social studies and science curricula to support ELL students on academic language and writing in content area subjects, this teacher/researcher team determined salient informational genres: historical explanations, biographies and scientific explanations.

A significant focus of instruction on reading these texts began in the nominal groups, a discussion point that became a key part of this classroom's metalanguage. The teacher began by using clause breaks and a transitivity analysis to highlight how these informational texts and the connected language features were grammatically more complex than in everyday spoken texts. She taught students the grammatical construction of the more complex nominal groups that made up a clause's participants and the specific types of processes that support these more complex nominal groups. Instruction focused students to attend to how "authors tended to use material and relational processes" and

“they [the students] also noted that authors tended to use ‘generalized participants’” (e.g., scientists, animals, people) (Gebhard et al., 2014, p. 118). When learning about these informational texts, especially the scientific explanation, students in this class began naming the participants based on the meaning made in the grammatical construction: some participants were simply participants when it was a singular word, or the more complex generalized participants when a participant was nominalized. Students invented metalanguage to discuss this distinction in lexico-grammar, naming participants “chunky” when there was an extended nominal group before the process.

In this classroom’s metalanguage, discussing the various ways a participant is managed became an important in students understanding of informational texts; the dependency on the nominal group before the verb as a place to either extend or condense information. The teacher found this combination was important to instruct as this grammatical pattern also reflects the larger purpose of the informational text genres; to teach new concepts by adding on new information in the participant slot of a clause. For students, this grammatical pattern can be complex, as it is quite difficult to discern the subject of a sentence when the subject is an extended nominal group, five or six words long. Understanding the function of an extended nominal group is significant in informational text comprehension (Schleppegrell, 2004), as this grammatical pattern is not normally employed in fiction or oral discourse, the far more familiar grammatical systems to students (Gebhard et al., 2014).

Grammatical metaphor was also valued as an important resource for these students when studying science texts. With assistance from their teacher, the students

“noted that the process to melt in the sentence ‘Polar ice caps are melting’ was followed by a sentence that further built on the idea of melting as the point of departure for the clause” (Gebhard et al., 2014, p. 118). Students were not only able to notice the change in melting, they began discussing nominalization as part of classroom metalanguage, able to note when words used in one clause would show up in a subsequent clause in a different grammatical form to extend an idea. Students’ ability to recognize of how syntax switches around also supports reading comprehension, especially instructing language as part of reading comprehension (rather than only focused on larger text features). Unsworth (2001) explains this kind of comprehensive language and literacy instruction is central to engaging with scientific discourse. He explains:

The development of students’ science learning throughout their schooling entails a gradual apprenticeship to the characteristic language structures of scientific English. These extend well beyond the obvious issue of technical vocabulary to include distinctive grammatical forms that characterize written rather than spoken language (Unsworth, 2001, p. 586).

Marshall (2006) found studying transitivity as a resource as well when tutoring a student learning to writing a poetry analysis. Marshall explains the instruction around nominalization was key for her student’s understanding of how to sound more academic when discussing poetry. The student explained to Marshall that she wanted to her to “capture a new precision in her writing” (p. 257). Marshall worked closely with this student to learn to control lexical resources by changing them from verbs to like nouns in order to reach her desire to sound more precise. Initial lessons focused on condensing a wide variety of verbs into one nominalized item, important as many aspects of poetry are emotive; readers depend on brevity rather than elaborate explanations (p. 257). The

student began to refer to this type of nominalized language as “power words” (p. 259). Power words, or nominalization, Marshall explained, was the most significant grammatical pattern she found in her teaching students both reading comprehension and emergent academic writing.

As a teacher using SFL in my classroom, I found the most compelling studies focusing on transitive analysis were the ones that took students beyond the naming of participant/process/circumstance and instructed these features as parts of clauses, contributing both to systems of meaning and to the text’s purpose as a whole. When these systems are not the focus of transitive analysis, only naming parts of a sentence reflects the isolated surface feature instruction SFL scholars heavily critique. For academic language development, understanding not only transitive elements but systems of transitivity as semiotic, were most evident when students who used transitive analysis were able to discuss how controlling content resources were useful to support the purpose of the text.

#### Theme #4

The fourth theme is examines a shift teachers had in instructional design when they learned more about the register variable mode. In many articles, findings suggest that when teachers taught the relationship between content and coherence, they were able to see the connection between register grammar and text purpose.

The relationship between language choice and a text purpose is not always evident to teachers, researchers or students. This text/context relationship is a sophisticated but a central aspect of SFL. The theory is grounded in understanding that

grammar serves as a set of meaningful resources that support the text's purpose within the affordances and constraints of the context. Many scholars discuss the importance of at least exploring this relationship with students in a writing pedagogy, attempting to teach aspects of register or genre and helping students connect the two (Schleppegrell, 2004; Gebhard et al., 2007). In the literature, a trend that demonstrated students beginning to apply this text/context integration as a resource to understand how language and genre operated in tandem was when the teachers taught aspects of the register variable mode. Recall mode accounts for the lexical-grammatical resources that promote cohesion across different channels of communication. Specific metalanguage assigned to mode are: Theme/Rheme, or the new and given information in a clause and the zig zag pattern that forms between clauses as new information develops; lexical chain, or a drawn line over a text tracking the maintenance of a main idea; and cohesive devices, the referents throughout the text that continue the flow of a topic throughout.

In Gebhard et al., (2014) third and fourth grade ELL students deconstructing biographies were taught to identify the Theme (or the given information in a clause) and the Rheme (the new information) as a way to observe how an author built coherence by adding new information to given information (Gebhard et al., 2014). First, students named cohesive devices with their as "time words" (when, before, then, while, finally). These words supported students when analyzing the biographies they were reading in class. The students were specifically taught to name cohesive time words to support genres in history, such as biographies, because those genres are focused on tracking time. When students read more biographies with their teacher, they identified the cohesive

devices in the Thematic part of the clause which reflected the goal of a biography, and the how this was realized in the Rheme. This pattern as found through a series of expected biographical texts. Students observed and discussed “how authors use temporal conjunctions to manage the flow of new and given information” in biographical writing (Gebhard et al., 2014). When revising their work, the students used the metalanguage of Theme and Rheme to observe “zig zag” patterns in their own texts as well as in the expert texts where cohesive devices were rephrased in new information to refer back to given information. The focal teacher in this study explained that “lexical chains” and “zig zags” evolved as a classroom metalanguage to discuss cohesion in biographies and were used in to name cohesive devices in her subsequent reading writing instruction focused on other genres as well. This work with text analysis and students naming parts of texts functionally suggest that young students are capable of critical discourse analysis (CDA). Furthermore, when encouraged to use CDA in interaction with their teacher, the teacher of this focal study noted that this level of text analysis leads to advances in her students’ reading comprehension, persistence in reading and invited more efficacy in beliefs of themselves as writers.

Throughout the studies, tracking coherence with language resources with a lexical chain was often discussed as tracking cohesive devices. These cohesive variables were taught to students as language that reflected the goals of the genre. For example, in Pavlak (2013), students learned to deconstruct biographies and name the stable and optional genre stages in biographical writing. Concurrently, language instruction focused on maintaining the flow of these stages of biographies. Pavlak (2013) observed students

choosing connective devices useful to linearize one's life. At first, students were learning to use past tense verbs and a series of clauses or clause complexes to satisfy the agreed upon biographical stages, but in their second drafts, they learned to use chronological language devices such as: *as a child, during his youth, next, finally, upon EVENT (e.g. graduation)* to connect each stage together (Pavlak, 2013, p. 409).

In both of these studies, Pavlak (2013) and Gebhard et al. (2014), students were able to discuss and name cohesive resources that supported the classroom focal genre. Gebhard et al. (2007) explains that this kind of connected language and genre instruction, where the register variables of mode are discussed as important resources for teaching cohesion, genres, and field components of the content area disciplines are significant. She states:

Students also need to learn new, disciplinary-specific ways of recognizing and establishing relationships between ideas...in addition to conjunctions such as "and," which are typical of everyday talk, students need to use a broader and more specific range of "connective" words that function to establish temporal, causal, and comparative relationships within texts (Gebhard et al., 2007, p. 422).

In other studies, teachers working with students on naming an audience's genre expectations also relied on the register mode to support this instruction. When writing to a school principal to get their recess back (Gebhard et al., 2007), the teacher designed language goals around audience and use of "connector words" (p. 424). The teacher noted in students' initial texts that they were using "and" as a repeated way to connect sentences in earlier drafts. Repetitive use of "and" serves as an oral discourse marker in spoken English, often used between clauses to maintain conversational flow. In response to the overuse of *and*, responsive instructional goals were developed to introduce students to the



cohesive devices that support a written argument. The teacher began by discussing with her students expectations that audiences have around cohesive devices in writing versus in a conversation. Instruction guided students away from the conjunction “and,” and instead toward a variety of connector words that showed contrast and accounted for multiple ideas. This instructional focus was explained to students as using the language needed to support deferential genre moves necessary for their letters of request to an audience in power. In this teacher’s lessons, she explains her understanding of audience as a resource for teaching connector words in that “[the teacher] noted that more ‘academic-sounding’ texts tend to replace the conjunction ‘and’ with a variety of ‘connector’ words and phrases to signal causal or contrastive relationships within a text: *therefore, however, although, whereas, as a result*” (Gebhard et al., 2007, p. 424).

Mode was also resourceful in supporting more specific disciplinary genre knowledge as well. When working with history teachers on the relationship between cohesive devices and how they were linked to transitivity patterns in historical texts, teachers participating in CHP also began to discuss cohesion as tied to historical text construction. Schleppegrell, Achugar and Oteíza (2004) explained to the history teachers that when teaching students to read historical texts, instruction should reflect cohesive language resources as closely tied to the participant actions in the text and that “conjunctions are signals of the organization of the content the text is emphasizing, and the way the events and participants are presented...” (p. 85). These researchers concluded that historical discourse and corresponding texts are usually built around an event in a certain time period, and cohesion should be included in instruction to support the build up

and explanation of the event. The cohesive devices they focused on were the ones which build cohesion in middle and high school history text books, described as “high frequency of adversative conjunctions and verbs that signal differences among ideas and thoughts” (Schleppegrell et al., 2004, p. 86). In terms of instruction, researchers, ELL and history teachers concluded after this professional development, in their instruction teachers were able to “look at the verbs and conjunctions to help students identify cohesive organizational patterns that are not just cause-effect or chronological” (Schleppegrell et al., 2004, p. 86). Teachers and researchers also found when teaching ELL students to write historical texts, the students benefitted from learning to “manage the language of time, abstraction, generalization, causality, and tense” (Schleppegrell et al., 2004, p. 86).

In other post CHP project interviews with teachers, they identified that the study of cohesion was the most helpful to them to understand texts as *constructed* rather than texts as *written*. Of all the language systems the history teachers began to identify as promoting cohesion in academic text construction, it was the language features most consistent with textual coherence that they named “reference” devices, or language used to help “students see the role of the pronouns, synonyms, and other reference devices that construct chains of meaning as a text evolves, structuring the flow of information in a text cohesively” (Schleppegrell & de Oliveira, 2006, p. 263). Teachers began to discuss coherence as a language system of referents contributing to the academic language choices necessary to maintain historical discourse. They found these language choices were the “larger constituents of the clause...and not individual words...” (Schleppegrell &

de Oliveira, 2006, p. 259). This observation was particularly important when looking at how coherence is constructed throughout the text to support the field choices, the genre and even the tenor.

Coherence resources were often used with students to discuss revision and as a way to determine if a student's initial text purpose was achieved. As I did with Kia, (see Figure 10 in Chapter Two), some instructors used lexical chains during revision lessons, useful for students to see if they have maintained a topic in their own writing. In this study, as in my own class, using a lexical chain involves drawing lines on a text between like ideas. Students can then see with this visible line where there may be gaps in their texts. In Marshall's study (2006), while working as a tutor with her English student who was struggling to write an argument on the theme across a series of assigned poems, the two discussed and identified nominalization in expert texts on poetic analysis of this kind. The student explained that while revising with a lexical chain analysis on her original text, she noted that nominalization had "created gaps in her text and that she needed textual coherence in those places that she had gaps in her chains" (p. 260). Marshall explained that in their meetings, they decided together that "readers need signposts on which to 'hang meanings', thereby, helping them find their way through a text" (p. 260) and that "Theme" is a "functional point of departure in English, usually at the start of the clause" (p 260). Using a lexical to analyze work, the student located and named these gaps in her text. She allowed the gaps to guide areas where she needed more cohesive devices: synonyms, pronouns, demonstratives, connections or nominalized objects. In the end of the revision process, the student was then able to decide if her argument about a

poem's theme had been maintained with a variety of cohesive resources from the start to finish of her text.

When instructing students to provide transitions in their writing, secondary English teachers use traditionally use metalanguage reflective of the Latinate parts of speech grammar category *conjunctions*, often naming them “transition words.” However, conjunctions are not the only language resources that contribute internal referencing systems that build cohesion, which was an evident teaching point for many teachers across the literature. Rather, pronouns and synonyms that reflect the text's main idea build up the Theme, while adverbs, adverbial phrases, prepositions and prepositional phrases contribute to building the newly developing content in the Rheme. Instead of a singular focus on transition words, the studies demonstrated that cohesion can be taught as connected to the text's purpose. Even younger elementary school students were able to discuss the grammatical resources that maintain the genre of a biography (Pavlak, 2013), as well as describing them as different than those used in narration or scientific explanation (Gebhard et al., 2014). Building student awareness on how multiple language resources work together to maintain coherence throughout a text is a significant resource when learning to control the language features necessary for academic writing genres.

#### Limitations of the Studies

The studies I have presented are reflective of a small but growing body of scholarship, one that is gaining traction in language education as a potential pedagogical resource to teach academic language to students. However, it is important to note that learning to teach with SFL is never explained in this literature as easy for teachers to fully

implement in the challenges they already face of designing a comprehensive literacy curriculum. Often in the findings of the studies, teachers reflect that this is a significantly harder way to teach at first and that teachers were initially frustrated to figure out implementation (See Schleppegrell, Greer & Taylor, 2008). Bourke (2005), Hillocks & Smith (2003) and Marshall (2006) all describe SFL as a theory as potentially too language heavy, with endless new terminology that will overwhelm teachers and students if taught incorrectly. When compared to the metalanguage Tally uses in Chapter One, there is value in these critiques; there are a significant number of terms at the most basic theoretical aspects of SFL that present as an extreme amount of new language to be learned. This level of terminology can seem daunting for teachers when compared to other literacies like the parts of speech or the fixed structures of the open response. The complexity of SFL and the learning curve for adapting it into classroom instruction is certainly a viable reason to question the theory, let alone develop instruction with it. There were also major critiques of SFL as a tool for classrooms, even by SFL scholars. Throughout the literature SFL was described as too complex in that an entire new set of language and grammatical terms that are unfamiliar to students and teachers was a waste of a teacher's professional development time. Critiques also stated that it would be so difficult to introduce all of this new terminology that it would complicate instructional time (Hillocks & Smith, 2003).

The other limitation of these studies are the focal participant teachers and issues of scalability. Consistently in the methods and the findings sections, researchers describe the teachers they worked with as exceptional: teachers who stand out in their graduate

programs and in their schools; teachers who did exceptionally well in other aspects of their professional work; teachers with leadership roles in district curriculums; teachers as adjunct professors, teaching graduate courses in local universities in the evening; teachers who had the trust of their administrators to allow this research in their classrooms; and teachers willing to let teams of researchers into their classrooms for extended amounts of time. Researchers were also stakeholders in this emergent research as they were motivated to study the design of an SFL informed pedagogy and observe how this theory actualizes in instruction. These researchers worked closely with teachers, providing them resources, extra professional development time, curriculum support and unit designs that were most likely inconsistent with the reality of planning language and curriculum instruction. Therefore, scalability may be questioned when developing critical academic language pedagogies with an SFL framework with consistently strong findings such as the research presented in this review.

### Response to Critiques of SFL Based Pedagogy

My response, based on an analysis of the literature as well as my own classroom work with SFL, is moving away from discussing the enormity of SFL as a theory. Researchers and teachers using SFL to write language pedagogies began by looking at the content goals and writing language goals to support the content development. It was my sense when analyzing this research that the size of the theory was viewed as a comprehensive set of language options to choose from to inform a curriculum and not a curriculum in of itself. Discussions on how to teach with SFL should be teacher-led, with demonstrations of to write manageable and useful language and content lessons informed

by a language theory with varying dimensions to support multiple angles of curriculum. Studies should also include a description of how students take to the theory. In all the studies I reviewed, students adapted to the idea that language is used differently at school with ease. In no article did I encounter students resisting this kind of instruction. In the featured studies, none of the teachers used all of SFL; instead, teachers relied on the theory to help them make choices around the language goals necessary to support aspects of focal content. Teachers responded to texts and student interaction with texts and then used SFL to inform some of their curricular choices and language goals. This trend in curricular design speaks to two important aspects of instruction. First, literacy is expansive and complex, and therefore literacy instruction benefits from a theory like SFL that is full of options to support the varying dimensions of the complexities of literary instruction. Secondly, the way teachers selected aspects of GBP and SFL to design language goals supportive of content area development speaks to the need to add teacher voice to the research. Teacher experience in research serves as more authentic, significant for other teachers who seek to try to teach in this way but need models beyond the theoretical or the potential. Teachers explained in multiple articles which aspects of SFL they chose and why. To create a pedagogy that appears accessible, more research is needed in classrooms with teacher-researcher teams, as well as a teacher's explanation of process.

### Discussion

Much of the scholarship I read for this review critiqued existing language pedagogies, including SFL pedagogies. Language pedagogies were discussed as

necessarily behaviorist (Snow, Burns & Griffin, 1998) to justifying the absence of a language pedagogy with theories of innatism (Myhill, 2005). Despite differing presentations, critiques and theories in grammar scholarship, policy makers and scholars agree on the fundamental importance of teaching students to use and understand language as central to advancing disciplinary literacy. Language based content area instruction was discussed as especially crucial as classrooms become more multilingual, as literacy test scores become more public and more content-based. Graduate schools of education must now include coursework on language in teacher preparation as *The Common Core for English Language Arts* (CCSS) and new laws around teacher preparation for working with ELLs (Landman, 2012) both mandate that teachers are responsible for language of their content area discipline (Darling-Hammond, 2000; Chung, 2008).

My initial searches on the database ERIC with the search term *academic language* yielded scores of articles. Notably, most of them were published in the last five years, suggesting the recent trends in studying academic language in both schools and literature. Some of the journals were clearly government sponsored rather than published in academic journals. Foundations and independent corporations connected to CCSS extol the importance for students to learn and adopt academic language registers in their school writing. Lexical density scores on student texts, or the percentage of content carrying words in a text, served as the primary data tool used to measure student academic language acquisition in these articles. Other literature I reviewed, which were for the most part peer reviewed academic journals, were more focused on discipline-specific angles. These works advocated that mathematics, science and social studies teachers



should incorporate more disciplinary vocabulary in instruction, that learning to use this disciplinary vocabulary would be useful for students to become successful in mastering the discipline specific discourse. However, these articles rarely mentioned grammar in tandem with vocabulary. Still other articles encouraged academic language instruction as best taught with the parts of speech grammar and sentence level corrective instruction. In these instances, language was described with nouns, verbs and the other parts of speech, discussing how to teach academic language with these categories of language. For example, Nagy and Townshend (2012), who do not use SFL as a theoretical framework, but use more traditional grammar models, describe the language of school texts as:

Written academic language has a different distribution of part-of-speech categories than spoken language, even spoken academic language. The greatest difference is in the proportion of nouns; however, written academic language also contains more adjectives and prepositions (Nagy & Townshend 2012, p. 94).

While there was no shortage in the literature on developing educational goals to teach students more language, what I found to be distinct about the SFL literature that I selected and reviewed is that SFL informed academic language instruction is being supported with a theory of grammar—not language lessons, not vocabulary, not lexical density and not measured outcomes. Instead, researchers using SFL anchor their research in a sociolinguistic description of how to teach students to learn to develop cognitive language tools and semiotic understanding of language is used in response to a context. These teachers were teaching students to understand how language registers combine, extend and morph syntactic structures to serve text goals. In turn, the students featured in these articles with an SFL framework were able to discuss this kind of language, with

theoretical metalinguistic descriptions of the language that constructs their school texts.

In many instances, focal students were described as attempting to discuss and employ academic language systems to their written texts in ways that suggest they were connecting genre and language as responsive to their school context. Therefore, these curriculums as not simply language teaching, but heuristic; students are learning language and concurrently learning how to learn and use language. This shift in research is away from other language education traditions and research focused on outcomes.

Academic language remains a newer concept in education discourse. New concepts such as this tend to garner “buzz” and risk becoming another testable entity (Darling-Hammond, 2000). However, there is traction in the SFL literature around the ethics of teaching students the connections between the school language and the context expectations, rather than learning to write in formulaic ways to reflect the demands of the standardized testing and political contexts. Unlike testable literacies, teaching language in this way promotes a more critical model of language, one that has the potential to empower students to acquire language registers in their daily lives.

Nearly two decades ago, the New London Group (1996) explained that expanding a student’s language resources is to expand the entirety of their personal literate practices as well. The New London group concluded “...when learners juxtapose different languages, discourses, styles and approaches, they gain substantively in meta-cognitive and meta-linguistic abilities and in their ability to reflect critically on complex systems and their interactions...” (New London Group, 1996, p. 69). It is with more research, particularly involving the teacher’s voice and experience, that may expand this discourse

into ways that begin to shift language pedagogies toward an integrated academic language.

### Locating my Work as an SFL Teacher-Researcher

While clearly an impressive body of SFL informed academic language literature exists, there were spaces I found where my dissertation may add to this body of research. In a US context in particular, as language and literacy researchers and teachers are learning together how to work within the CCSS framework and the new academic language demands included in CCSS, far more research needs to be done on teaching and integrating academic language to both challenge and work within a testing framework. My study draws upon both SFL and CCSS, and it may be informative as a way to connect both fields.

In my literature searches, I also did not find other studies from the teacher's perspective. Every study was a collaborative researcher/teacher team, sometimes with the teacher as second author and as a project designer, but the objective researcher was responsible for data collection and findings. Having a teacher's voice may serve as an authentic response to critics of SFL based instruction who maintain that the enormity of the theory makes it too difficult for classroom teachers to incorporate (Bourke, 2005). Writing a unit this way and writing up a reflection on my experience invites space for more longitudinal teacher centered studies with teachers' voices over time, both in how teachers make sense of SFL in the absence of a researcher agenda, and how teachers evolve year-to-year as they continue to write a curriculum informed by SFL.

Many articles reviewed focused on contexts where participants were either second

language learners or where schools were somewhat desperate for an intervention. However my study takes place in a relatively middle class context and most of my students speak English as L1. All of my students responded to SFL as well, which may suggest this type of instruction as beneficial for all students, no matter the first language composite of the classroom. I also have an important sub group of students represented in my study, recent ELL graduates. My focal student Kia, an ELL graduate, is not unlike students in many classrooms in the US who speak English like their L1 peers, and who can pass English fluency tests to graduate from ELL services, but they struggle to develop the academic language resources needed to support them reading and writing in English. This group of students traditionally struggles with reading and writing when compared to their grade level peers when they lose ELL services (Téllez & Waxman, 2006).

I also did not find studies that tracked a teacher's experience designing SFL-based instruction over an extended period of time. Possible ethnographic and phenomenological studies of teacher experience with lesson design could better prepare university professors to work with in-service teachers and designing graduate coursework on language pedagogy design for them. This work could support the trajectory of teacher learning and implementation. Examining how teachers grow each year with the theory may also provide researchers with a better understanding of how SFL instruction will emerge, even if slowly, as teachers grow more comfortable writing language learning objectives and long term, implementing a new theory of language.

## CHAPTER 4

### AN INTRODUCTION TO THE RESEARCH CONTEXT, PARTICIPANTS AND THE CURRICULAR UNIT

#### Context: Northtown

The context of this study is my seventh grade English Language Arts (ELA) classroom. The middle school where I teach is in a middle class community in the Northeast United States, “Northtown,” which serves roughly 2700 pK-12 public school students. The middle school where I teach serves students in grades 6-8 and is the only middle school in the Northtown school district. Before coming to Northtown Middle School, my students attend one of four small pK-5 neighborhood elementary schools in Northtown or one of a the few prestigious K-6 private or religious schools nearby. Some of the town’s students also attend private day and boarding high schools nearby. The majority of my students will either go to Northtown’s public high school or the county’s vocational high school, which is in Northtown as well. In total, there are seven public schools that make up the Northtown Public Schools.

Northtown is well known for liberal progressivism, specifically on issues around sexuality, same sex marriage, transgender rights and environmental advocacy. Many people with significantly liberal beliefs about family structure gravitate to Northtown as it is a well-known safe haven for all family models. Northtown also takes great pride in building a strong locally-based product economy, evident in the bustling downtown filled with local artists and artisans, cafes, independent book stores and restaurants and farmers’ markets with produce from the surrounding farms. It is also an active college town. There

is a top-ranked liberal arts college in the town center that draws students and professors from around the world, adding to Northtown's academic and unique culture. In the towns adjacent to Northtown, there are also three other top ranked liberal arts colleges, as well as the flagship state research university. Collectively called the five colleges, these institutions are a major source of employment for many families with children in Northtown's public schools, who support all aspects of maintaining the five college system. With these dynamics, Northtown's public school students come from families with stratified levels of education and income as well as varied political ideologies which shape both their families and individual beliefs.

Despite the dynamic culture, this historic mill town has also been impacted by a decade-long economic down turn. Unemployment rates have gone from 4.1% in 2000, to 9.8% in 2012 (Employment & Jobs, "Northtown"<sup>9</sup> 2012). The number of residents in Section 8 housing has more than doubled since 2000 (Employment & Jobs, "Northtown" 2012). Trends in student demographics are reflected in poverty indicators such as increases free and reduced lunch; 29% of student body in 2012 received free or reduced lunch, up from 18% in 2002 (Massachusetts Department of Elementary and Secondary Education [DESE], 2012). As a result, the district is eligible for Title 1 funding, a government program that assists school districts with funds to offset the costs schools incur when assisting a certain percentage of families living below the poverty line (Massachusetts Department of Elementary and Secondary Education [DESE], 2012). The school budgets have been reduced as well, with suggested salary freezes and furlough

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<sup>9</sup> City name changed to pseudonym "Northtown"

days, contentious tax overrides, augmented class sizes and cuts to music and arts programming.

There have also been shifts in the student population over the last decade in Northtown. The rate of English Language Learners (ELL) students and subsequent ELL programming are often noted as the fastest growing departments in all seven of the district schools. Most ELL students speak Spanish, reflective of a growing Puerto Rican population in town, one with strong family ties still to Puerto Rico. Many of the Puerto Rican students in Northtown live transnationally; families and family businesses operating in the United States and Puerto Rico, requiring families to live in both Northtown and Puerto Rico. This transnationalism complicates many of the ELL students' school calendars, with some Puerto Rican students enrolling in the fall, withdrawing around Thanksgiving to go back to Puerto Rico for the winter months and then re-enrolling in the district later in the school year, generally right before the state tests. This back and forth enrollment pattern has a negative impact on their state scores. With these fluctuating numbers of ELL students, it also makes it difficult to hire enough district ELL teachers each year, as the number of teachers is based on the ELL population numbers every year on January 1, when not all ELLs are currently enrolled (meeting, 11/2011).

On the state level, Northtown's public schools have been ranked as a level-three school system on a state implemented five-tiered scale. School districts with level-one designations are ranked as the highest performing schools in the state, while level-four are systems deemed at risk and level-five systems eligible for private take over (DESE,

2012). There is ongoing discussion throughout the school system strategizing how the school district can boost scores to meet the criteria of a level-two system by making adjustments to the curriculum. For the most part, curricular strategies are focused on continuously measuring student achievement in math, reading and writing. As a result, the district's initiatives focus mainly on reworking the math and literacy curricula into more standardized and measurable programming, reflected in standard common assessments such as the open response writing. As a level-three school system, teachers and administrators must also use state provided databases where they can quantify and track student scores over a three year period. In response to the level three mandates, the district has purchased test taking software, where students who have not met set growth measures on tests in three years get an online account to practice math and reading skills as part of their curriculum. The software then generates reports for teachers and administrators on each student's strengths and weaknesses. Notable for this study, nearly all the ELL students in my school must participate in this online testing curriculum to address their low test scores.

Consistent with national statistics (NAEP, 2012), subgroups<sup>10</sup> at Northtown Middle School, or groups that make up more than 100 students or 12% of a district's student body, are performing below school, state and national averages (MA DESE, 2012). The subgroups represented in Northtown include students from the following groups: ELL, minority, low-income, Special Education, truancy,<sup>11</sup> free/reduced lunch and

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<sup>10</sup> In Massachusetts public schools, a subgroup is defined as statistically significant portion of students based on race, language or special needs within the larger student body. Statistics are determined as 12% of the student body or 100 or more students and is set by DESE (DESE, 2014)

<sup>11</sup> K-8 students in the truancy subgroup have missed more than 6 % of the school year.



Title 1. Subgroups garner particular attention by school administrators. In the 2011-2012 school year, the focal year of this study, there was a district wide focus on how teaching practices could be adjusted to meet the needs of students in the subgroups as the school transitioned to heterogeneously mixed-ability classes, a decision made the previous year in response to the stagnant test scores of students enrolled in the lower ability classes. Ultimately though, the focus remained on how to design curriculum to raise the lower test scores enough that Northtown can achieve a level-two district ranking.

Field Site: Period 5 English

All students at this school must take an ELA class daily, each class lasting 51 minutes. While I designed a language pedagogy with SFL/GBP and taught the same curriculum to all five of my seventh grade English classes during the 2011-2012 school year, this study focuses on the two students introduced in Chapter One, Kia and Tally, and their classmates in my Period 5 class. Period 5 was a heterogeneously mixed-ability grade level English Language Arts (ELA) class, meaning students were not placed in this English class based on ability, but that it was understood to be a course with mixed academic ability grouping. Of importance to the context of this study, this was the first school year that all Northtown students in grades 6-8 were placed in heterogeneously mixed English classes. This change in class groupings was a shift from the tracking practices in the previous years, where students had been placed into ability grouped classes based on their reading scores at the start of middle school and then they were tracked in those leveled classes for all three grades (6-8).

At the time of the study, Period 5 had 22 students. Instruction was in English and

all students were either L1 speakers of English or were graduates of the school's ELL programming. To be exited from ELL programming, students must test proficient on a state English fluency test. Four students in the class, all of whom identified oral proficiency with Spanish, were graduates of the ELL program. When I asked them about language use in and out of school, all four students explained they spoke Spanish with grandparents or parents at dinner and church and a mix of Spanish and English when on the bus or when spending time with friends from their neighborhood. During the early phases of the study, one of these four students left Northtown for Puerto Rico in late November and had not returned during the time period of focused dissertation collection. I have not counted him as a student in this study (which would have made the study focused on 23 students), although I did collect data on him at the beginning of the year.

Roughly one third of the students in this class scored below the state average on their standardized writing tests during their sixth grade school year. These students scored on the state level in the Needs Improvement (NI) score category. The remaining students received scores in the Proficient (P) score category and with one student scoring in Advanced (A) score category. There were no students in this class in the Warning category (W). Proficient scores are considered passing and are necessary to lift the school system out of level-three status (DESE, 2013). There was also one student in the class on an Individualized Education Plan (IEP), requiring specialized instruction for writing. His work is included in the final data corpus. Despite this class of diverse learning profiles and home languages, I was the only teacher in the room. There was no other inclusionary support staff member, as other classes of this profile may have in my school if personnel

is available.

Video data captures a relatively stable routine in the classroom every day. On the blackboard, there was the school mandated “do now” (opening activity) that students were to do at the start of each lesson and posted homework students were to copy. There was a homework submission folder for students to submit homework on their own at the start of each lesson. Students were able to access these daily routines with few reminders. Due to the L shape of my classroom, students had to sit at large tables in rows in the longer section of the L in order for all to be able to see the chalkboard and white board easel that the school had purchased for all classrooms (see Figure 13). Indicative of changes to the school’s curriculum to boost test scores, daily literacy goals were posted on the dry erase white easel in every classroom. These learning goals were written as “mastery” objectives. Students and teachers were to preview these objectives at the start of every class and then the teacher was to review them, checking for “mastery,” at the end of each class. As I was reminded in one of my evaluation meetings, the most important aspect of classroom ecology at Northtown Middle School for all teachers to consider was all students needed to be able to see the “mastery learning objective” from their seats.

Figure 13 is a generalized view of how my classroom was organized and where Kia and Tally usually sat throughout the research. I have also identified on Figure 13 where secondary focal participants, “Molly” and “Josh,” sat. All four of these students will be

discussed in the next section.

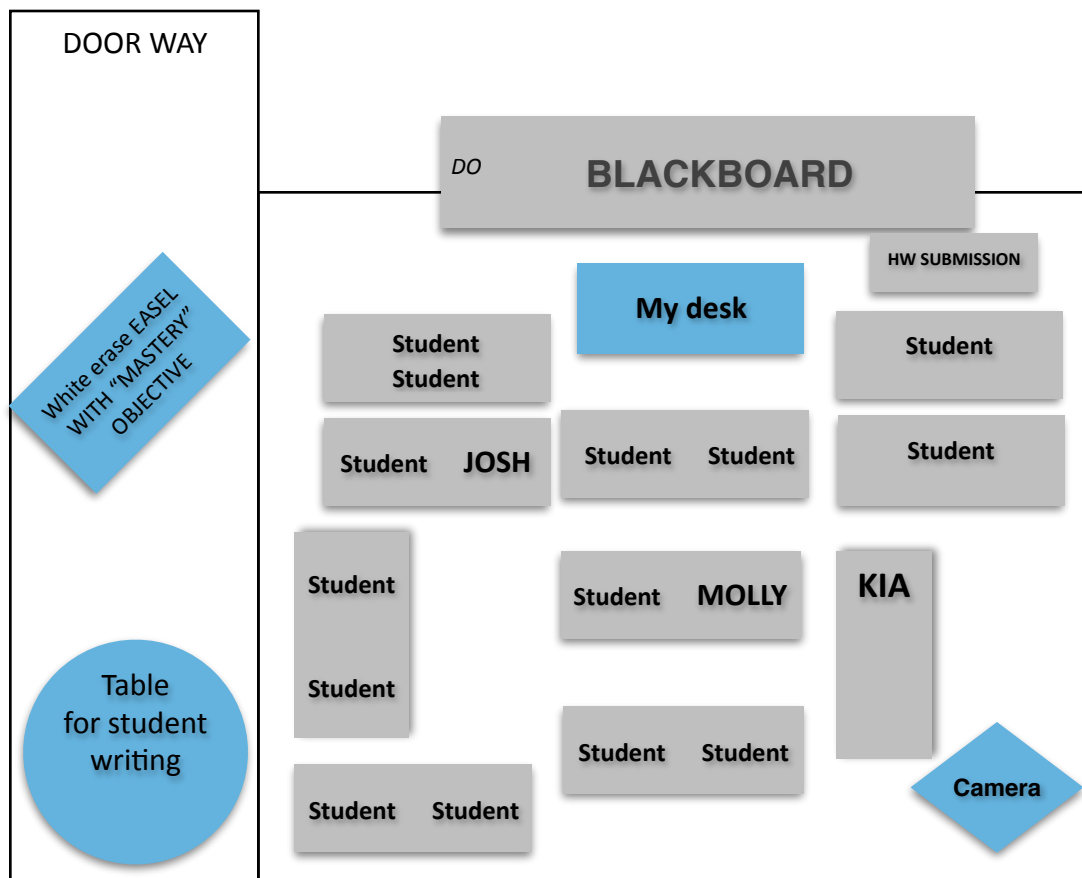


Figure 13: Map of Classroom, Period 5, 2011-2012 School Year

### Focal Participants

Although I collected data on the entire class, I studied Tally and Kia closely. Both girls were followed and observed over a seven-month time period (September 2011-March 2012). These two students were chosen at the beginning of the year because of the contrast between their struggles with writing in past school years along with their consistently low grades and standardized test scores, both of which were inconsistent when compared with their active engagement during English classes. Kia became a more active contributor during class after her initial anxiety concerning her open response

writing (see Chapter One). However, she continued to stand out in terms of issues with her writing, as she was one of the weakest readers and writers in the class, consistently avoiding writing assignments throughout the start of the year. She had routinely scored in the lowest percentile on both the reading and the writing state assessments, yet had not received focused English language support from the school system since graduating from ELL in the fourth grade. At first, when she did homework and classwork, it was, for the most part, incomprehensible. Her work was extremely messy, her spelling was significantly behind what I would expect of a seventh grade student in Northtown and she struggled to use textual evidence from assigned readings in any of her homework responses. On the other hand, Tally stood out as she was almost too vocal and involved in class yet this sophisticated engagement did not carry over into her writing. At first, Tally's assignments were often incomplete, if completed at all. After reviewing the seven months of video, I recorded in my field notes that neither Kia nor Tally appeared to be recognized by their peers in Period 5 as struggling with grade level reading or writing.

At the time of the study, Kia was 12. She identified herself as Latino and from Puerto Rico. She explained to me that she speaks Spanish exclusively at home and maintains that she “think[s] her first language is Spanish...” (interview, 12/2011). She lived with her mother, her maternal grandparents and her younger brother in low-income housing and received a reduced-price lunch. In reviewing her files, it was clear that Kia historically struggled in English class, receiving a “Warning” on her standardized literacy tests in fourth grade, and a “Needs Improvement” on her standardized literacy tests in both fifth and sixth grade. Until this year's shift to heterogeneously mixed groups, she

had been placed in the lower level English class. When I asked her in our initial interview (see Chapter One) if she thought of herself as a writer, she emphatically overstated *NO!!!!* (notes on meeting 9/2011). She was aware that her writing “was really not good” (recorded interview 11/2011). She explained to me that she was “very worried” about her writing and assumed she was just going to go to the district’s vocational high school or a local performing arts charter school where she “did not need to know how to write” (interview, 11/2011).

Communicating with Kia’s family required a bilingual staff member to assist me with the phone call about arranging rides to and from school. When the bilingual staff member spoke with Kia’s mother about the project, her mother expressed concern about Kia’s grades. Her mother needed help understanding Kia’s state test scores, but had not felt comfortable communicating with the school about Kia’s scores or her grades. After we offered to work with the mother on understanding Kia’s scores and to report back on her progress as a writer regularly, her mother and her grandmother both gave informed consent to this project. Her mother expressed to the translator that she hoped Kia would learn more about writing in English by being part of this project. She willingly allowed her to stay after school for three formal interviews, arranged all transportation for Kia and gave me full permission to analyze and use her work for my research, conferences and presentations under our agreed upon pseudonym “Kia.”

Tally’s struggles in her ELA test scores were similar to Kia’s. As stated, the contrast between her struggles in past school years with writing in conjunction with her consistently low standardized test scores were marked when compared with her active

involvement as an enthusiastic participant in English class. Her positive contributions to the class were evident almost immediately, especially when discussing content focused on issues of social justice. She was truly a leader in class discussions. However, her writing fluency was weak; she used very little language between her ideas and her sentences generally lacked common content from one idea to the next. She needed support in learning how to use text evidence to support what she was suggesting too, an assumed grade level skill. Like Kia, she had also been placed in the lower English classes until this year.

In a formal interview three months into the study, I asked Tally to describe herself to me. She identified herself as a 13 year-old white female. She claimed her first language to be English although she was actively trying to learn Spanish because most of her friends speak Spanish outside of school and in her neighborhood. She lived with her mother, a single parent, in a subsidized apartment complex in Northtown along with her two half siblings. As she was the oldest of the three children, she often cared for her two younger siblings after school. Tally explained to me that she attended a few different elementary schools and that she would probably not attend Northtown Middle School for her eighth grade year as her mother had a possible job prospect about an hour away. She received free lunch and breakfast and was excused from most financial responsibilities that exceeded regular school costs (e.g. sports fees, field trips, transportation fees, book purchases). She was aware that she continued to receive a Needs Improvement (NI) score on her annual state standardized test since she began taking them in the third grade, but did not express much concern about it. I asked her about her homework completion

practices as other teachers on my team<sup>12</sup> had reported that Tally was not handing her homework in. She explained to me that after school, most of her time was spent caring for her younger siblings, so she did not really have time for my homework until the weekends. Given her out of school responsibilities, I allowed her to hand work in her ELA homework on Mondays without penalty if she could try to do her other subject area studies during the week. For the most part, this system worked.

Tally reported liking school somewhat and stated she never thought of herself as a good or a bad writer. In an interview (3/2012), Tally explained, “I actually don’t remember being asked to write very much and usually my teachers have not talked to me much about my writing. So I guess that means I do ok...” Her mother also gave informed consent for Tally to participate in this project but expressed it would be a hardship as Tally was her primary childcare after school. We agreed that Tally could do an interview over lunch and her mother would allow her to stay after school for the other two formal interviews. She gave me full permission to analyze and use her work my research, conferences and presentations under our agreed upon pseudonym “Tally.”

Both students had mediocre attendance records which became obvious during data collection. In particular, Kia was well known as a student that struggled with attendance. However, on an interesting note, both girls also joined the school’s “Civil Rights and Student of Color and Action” club (known as ‘SOCA’), a group that met during lunch every other Thursday with our team’s social studies teacher to tackle issues around race and social injustice at school. This activity was a place where Kia stated she

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<sup>12</sup> At my school, students are on teams of teachers. Students on a team share the same math, science, English and social studies teachers.



could “get the work done she likes...[as opposed to] the rest of school, which is boring...” (interview, 1/2012).

As a teacher-researcher in a qualitative study, I view myself as a participant with biases and subjectivities that could shape the findings. Both of my parents attended college and speak a standard English dialect. They raised our family in a middle class suburb of a major city in the Northeast United States with top-ranked public schools which I attended from K-12. I have a Bachelor’s Degree in History and Music with a minor in French, and I have a Post-Baccalaureate teaching degree in secondary (7-12) social studies education. I began teaching middle school social studies full time immediately upon completing my Post-Baccalaureate teaching certificate. After teaching full time for two years, I then began a graduate degree part time in grades 5-8 humanities education. With this degree, I began a new job teaching sixth grade humanities, which included teaching ELA and social studies as an interdisciplinary course. All three of these degrees were earned at large, well-respected state universities. Since completing my graduate work, I have completed the requirements and obtained four professional<sup>13</sup> state teaching licenses: grades 5-8 English, 9-12 English, 5-8 humanities and 7-12 social studies. Significant to this study, I am working towards a doctorate in education with a focus on academic language and writing. I have studied SFL and GBP both in teacher education coursework and in applied linguistic coursework focused on issues in critical discourse analysis (CDA). At the time of the study, I had been teaching middle school English and/or social studies for eight years but only one year in Northtown. It was also

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<sup>13</sup> This is the highest level teaching license in my state.

the first year I used SFL to inform a language pedagogy as part of content area instruction.

Examples of classroom artifacts from the study are included in the theoretical framework (Chapter Two), the methods (Chapter Five) and findings sections (Chapters Six and Seven) of this dissertation. Most of the artifacts are Kia's and Tally's work, as well as a few other students from Period 5. Other students voices were especially important in transcripts capturing the development and use of an SFL metalanguage in class discussions (See Chapter Six). In particular, two additional students "Molly" and "Josh" are represented in the included data, along with Tally and Kia. Molly scores significantly above the state average on the annual state tests. She writes fiction stories as a hobby outside of school, and her writing has won prestigious awards in national writing contests. Both of her parents are teachers in Northtown and expressed concern to me early in the school year that Molly was under-challenged academically in her sixth grade year at Northtown Middle School. Josh struggled with writing compared to his grade-level peers in Northtown, but his test scores have been within 5% points of the state average for the past five years, receiving a score of low Proficient (P) on his last three years of tests. His writing presents as similar to what I would expect as grade-level writing for a seventh grade student upon entering seventh grade. His parents were eager for him to participate in this research, coming in for a meeting with me where they explained that getting him to complete writing assignments at home was a struggle. His writing assignments usually ended with him in tears and with them having to complete the writing assignments for him.

Table 3 breaks down comparative demographics of these students. As stated in Figure 13, the image of my classroom, I included where Molly and Josh sat in the classroom seating chart.

Table 3: Information about Participants at the Time of the Study

Participant	Age at time of study	First language	State test scores	Race	Primary or secondary participant
Tally	13	English	Below state average	White	Primary participant in empirical study and dissertation
Kia	12	Spanish	Below state average	Latino	Primary participant in dissertation
Molly	13	English	Above state average	White	Secondary participant
Josh	12	English	At state average	White	Secondary participant

I decided to focus on Period 5 for several reasons. First, I was struck by the disparities in abilities. On one hand, I had a few students like Molly who had also reported to me in initial interviews that school was way too easy. In fact, Molly echoed her parents in her initial writing meeting with me, claiming that she was used to “always being bored at school” (Molly, 9/2011). While reviewing classroom videos at a later time, I observed Molly completing the open response writing assignments quickly and then just sitting in her seat with nothing to do while I was helping others with the basics of the assignment. On the other hand, I had students like Kia who struggled to write a basic sentence. This ability range fascinated me, especially as it was the first year at Northtown Middle School where students like Kia and Tally were in the same class as students like Molly, participating in the same untracked curriculum.

The second reason I chose Period 5 was that within a few weeks, I had so much data from researching all five of my ELA classes, it was unsustainable. I learned in this initial phase of research that collecting data on your own class is easier later in the day, to ensure everything is ready for students and the lesson is set. While parts of the afternoon at Northtown Middle School are on a rotating schedule, Period 5 class was always after lunch, regardless of the schedule rotation. I used my lunch period to help me get organized and prepare for the transition from teacher to teacher-as-researcher. As I was doing this data collection by myself, yet my priority was to still effectively teach my students, I wanted to make sure everything was in place before I collected data. This way, I could teach as usual and then organize the data after school. I would watch videos, write field notes and transcripts on the weekends, as well as plan out the next phases of curriculum, language instruction and research. Despite this focus on Period 5, there were very few variations between the lessons I taught to my other classes throughout my school day. All of my students studied the elements of fiction/open response writing as our first content-based unit from September-mid November and informational texts in our second unit of study. All of my students also participated in an SFL informed language pedagogy.

In the last week in September, I decided to concentrate on Period 5 as the field site and I discussed this with the students at that time. However, I did not specifically state to the entire class that I was focused on Kia and Tally. I shared this information with them in early November and allowed them to tell other students if they chose to. Students in Period 5 grew accustomed to the video camera set up in the back corner of my

classroom for most of the year, even reminding me at times that I needed to turn it on. They were excited to be part of the study and enjoyed seeing their work scanned and included in presentations I was preparing for conferences and presentations at the university I attend. At the start of the school year, all families in the class signed informed consent for the video recording and my research (see Appendix A), and Molly's and Josh's parents signed the same level of an IRB approved consent forms that Kia's and Tally's did.

### The Common Core Benchmarks

Right before the 2011-2012 school year started, the state, the district and my middle school adapted *The Common Core State Standards* (CCSS) adding further complexity to the new de-leveled class model. CCSS includes a series of reading, writing and language benchmarks that must be achieved by the end of the school year for each grade level (see Appendix 2a, 2b and 2c for the seventh grade benchmarks). CCSS has been adopted by many states to align curriculum with federal test taking standards. This *de facto* national standards was implemented in the 2010-2011 school year in many states, and over the course of my dissertation research, a total of 42 states adapted and implemented this new set of standards (Common Core standards in your State, 2012). Eventually, students in CCSS states will be tested on CCSS benchmarks with the new federal test, the PARCC test (Partnership for Assessment of Readiness for College and Careers). PARCC is a federal exam that will have implications for high school graduation beginning in 2015-2016 (Standards in your State, 2014).

By mid summer 2011, it was announced and then mandated to all teachers over a series of district wide emails that we were to begin the transition from Northtown Middle School's existing curriculum to one informed by CCSS at the onset of the coming school year, a year behind the rest of our state. The emails also included timelines for implementation, noting that by the following school year (2012-2013), we were to prepare for a full implementation of CCSS, rewriting our current curriculum to reflect CCSS benchmarks for each grade level. These emails also explained the urgency of this expedited transition, as the curriculum was to be restructured, redeveloped, uploaded for public viewing and approved by the Department of Elementary and Secondary Education (DESE) by the end of the 2013-2014 school year.

Under CCSS, I found some positive changes from the previous state standards, especially in terms of writing instruction. Students now faced more demanding writing criteria than the open response reflected (yet we were still being asked to teach it). CCSS highlights three genres students must "master" in English class by the end of middle school: the narrative, the argument and the explanation, all of which are broken down and outlined in CCSS (see Appendix 2a for more information on the genres that inform seventh grade writing benchmarks). The genres were laid out as somewhat fixed but with some options. There are also discipline specific genres tied to history and science that were included in CCSS as distinct from the ELA writing benchmarks. Another positive shift I found from the former state standards to CCSS is that students are now to learn to produce writing that reflects the linguistic expectations of an academic text or context. CCSS includes a set of academic language benchmarks targeting instruction on learning

an academic register in ELA, but also includes discipline specific academic language and writing goals for social studies and science. Of importance to the context of this dissertation, this is the first state or federal standards with teaching benchmarks that include academic language as a core requirement for teaching academic literacy.

### Curricular Context of Northtown

As stated, this was the first year Northtown had switched to heterogeneously mixed-ability classes in grades 6-8. Previously, the classes had been leveled by skills and state test scores, Level 1 being the harder class with a faster pace and Level 2 classes were generally smaller and slower paced. Many teachers expressed concern about the leveled model, noting how segregated the classes were by race, home language and social class. This change in class structure was underscored by CCSS, which highlights differentiated benchmarks to target individual student learning rather than only focused on student outcomes, as the previous state standards had. Administrators systemwide expressed that this change to de-leveled classes was to be coupled with transitioning away from school's former outcome-based curriculum to a curriculum with assessment practices anchored in student growth models and individual achievement.

From the onset of the year, CCSS benchmarks dominated every level of discussion about curriculum and assessment district wide. I note in my field notes that all but one of the curricular meetings I attended in 2011-2012 was focused on adopting CCSS benchmarks and restructuring teaching around learning to differentiate assessments in heterogeneously mixed classes using CCSS. The school district also hired multiple CCSS coaches and growth modeling consultants to come work with teachers on this curricular

transition. This change in practice was explained by the CCSS coaches and consultants to be the key to raising test scores. The coaches set up classrooms with teachers, and made the policy school wide that every lesson was to be based on CCSS and the posted “mastery” objective on the white erase easel was to be lifted directly from the CCSS document.

One of the changes that was to happen at every grade level (and was mentioned just about every time CCSS came up in any professional development or city wide meetings) was that ELA/literature/writing teachers were to teach a curricular unit specifically focused on informational texts. This unit was to replace one of the traditionally fiction based unit (e.g. “fantasy” or “mythology”), a change that reflects one of the most salient curricular re-organization practices associated with CCSS. Our state test scores showed students were weaker in reading and writing about nonfiction texts, so instruction was to shift state-wide in response to target more non fictional content learning goals. By the end of high school, all students in CCSS schools are now to read as many non-fiction texts as fiction texts in English (meeting with CCSS coach, 10/2011).

ELA teachers were encouraged by the CCSS experts to reach out to social studies, science, health, mathematics, music and physical education teachers to try to find content based informational strands between subjects with nonfiction texts to teach that could be supported in ELA. With this emphasis on informational texts, I chose to write a cross curricular informational text<sup>14</sup> non-fiction unit in collaboration with my students’ seventh

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<sup>14</sup> CCSS delineates the “informational text instruction” category as separate from “fiction.” It reflects what schools traditionally called “non-fiction” text instruction.



grade science teacher, Ms. Bird.<sup>15</sup> I approached her in early November, and she agreed that I could share part of her endangered species unit with her which she had started around mid-October. She shared her past content goals on teaching regional and local endangered species. The existing content she addressed each year on endangered species were as follows:

- The environmental causes of endangerment
- The local impact of endangered wildlife
- The impact on life cycles of other animals and natural resources
- Awareness/advocacy for endangered species.

She also encouraged me to work with a local expert from the regional Fish and Wildlife Office (FWS) explaining to me that she worked with the local Fish & Wildlife Service (FWS) in the past when studying endangered species, and that they provide free educational programs for middle grade students.

In early November, I sent an email to the local FWS education department who put me in direct contact with the field officer responsible for advocacy concerning White Nose Syndrome (WNS), a disease killing off the local and regional bat population (see next section for more information on WNS). Her expertise and educational programs for that year were focused on the endangerment of hibernating bats and WNS. She immediately responded with links to her blog and with some PDFs of texts students could read on bats to support their study on WNS. The texts the FWS officer provided me with were a variety of informational texts that she used to educate the general public on WNS

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<sup>15</sup> Pseudonym

and the impact the disease has had locally, nearly wiping out the hibernating bats. The FWS posted this literature at all of their regional FWS visitor centers and sites as handouts and brochures. These texts provided scientific explanations of hibernating versus migrating bats, WNS, as well as texts about bats' abnormally long gestation period. The latter texts highlighted how difficult it is to repopulate the declining species due to the year long pregnancies, which made the decimating bat population all the more difficult to repopulate. She also provided lab reports from a University of Wisconsin study that detailed research being done on the evolution and quick spread of the disease WNS from their testing centers (see Appendix 3 for these texts).

I worked with the FWS officer and Ms. Bird using email and two face-to-face meetings to design a unit we finally named "Something is killing our bats! Reading and writing like scientists; The White Nose Syndrome investigation." Ms. Bird approved this topic as relevant and connected, explaining that a major component of her curriculum was the impact of endangered species at the local level.

#### Endangered Species Near and Around Northtown

While Northtown does have a vibrant downtown and is considered a small/middle sized town, it is also surrounded by farms, forests and is rich with wildlife. At the time of this study, species of hibernating bats specific to the Northeast United States had been recently added to the U.S. endangered species list (U.S. Fish and Wildlife Service, 2012). The endangerment status was due to White Nose Syndrome (WNS), a disease explained to me by the FWS officer as caused by an idiosyncratic infectious fungal disease growing in caves during the winter months, eventually killing hibernating bats. The mysterious

fungus, *geomyces destructans* caused hibernating bats to grow white fungus on their muzzles while they were hibernating, an indicator that the bat had contracted WNS. A major symptom of the disease is the depletion of fat stores, fat needed during hibernation to keep bats asleep. With no fat stored to sustain hibernation, bats were waking up prematurely, starving and quickly switching away from their nocturnal cycles. Bats could be seen flying around in the day in Northtown, during the cold winter months, unable to find food and eventually dying of starvation.

With the advice of the FWS officer, I also started reviewing the local newspapers. She told me that WNS was starting to make local headlines, mentioned in various sections of the local paper. The reporting mainly focused on how these bats were useful to local farmers, as the local hibernating bat population prepared their bodies all throughout the summer and fall for hibernation by consuming nearly a ton of crop eating bugs and pests each summer. Farmers explained that bats prevented the need for excessive pesticides because of their pest consumption, but as the fungus had spread quickly in local caves over the last five winters, killing off bats by the thousands, these farmers were beginning to report a predicted increase in need for pesticides as soon as the following summer. They claimed this to be a direct result of the rapidly depleting bug-eating bat population (Something is killing our bats, 2009).

### Unit Design

Due to my contact at FWS, I had a rich collection of informational texts to frame the unit: the FWS officer's constantly updated blog, lab reports from a university lab, general explanations for a public audience and local newspaper editorials about next steps

for bat preservation in and around Northtown. All of these text types fall under the CCSS framework as a type of instructional informational texts and were approved by both Ms. Bird as well as the school administration.

After I had confirmation that we would work with the educational center at the regional Fish and Wildlife Service (FWS) and we had met with the FWS officer to design the content goals of the unit, I arranged a final meeting with Ms. Bird. I wanted to further share my ideas about teaching scientific discourse and literacy as a focus of our cross curricular ELA/Science unit. We had discussed scientific literacy briefly at our first meeting, and I wanted feedback from her on the language and writing she felt students needed. In our meeting, I explained to her I wanted to teach ways to read, write and analyze informational texts like scientists may do. I reminded her that this unit was a possible study for my dissertation. I knew that her curricular units were already packed full of content she had to cover, but the only direction I had on this new unit (for this year anyway) was to omit a fiction unit from the school's existing curriculum and replace it with an informational text unit with the content of my choice, using CCSS for all learning objectives. As this was my first full year at Northtown, my curriculum was all new and therefore did not present the same challenge for me as it did for the established science teacher, and I had room to teach scientific language and literacy goals in tandem with my bat unit.

Ms. Bird stated again that she was more than happy to share parts of her massive endangered species unit with me, but she also stated that she had not planned on separating out a unit on scientific literacy, nor was she really sure how to include CCSS

in her existing curriculum. Therefore, as far as she was concerned, I could “teach open responses if I liked.” (meeting, 11/1/2011). At this point in the study, I agreed with Ms. Bird that I would also teach an open response focused on a scientific text. I explained to her that beyond the open response, I wanted to specifically try to teach scientific discourse and the language of science. I was interested in whether or not learning the academic language patterns in science would be useful to students, and if learning about the language of science helped prepare students to better read and write scientific texts. I discussed that much of the literature I had read in graduate school suggested that each discipline had language specifics that would support students in accessing the content and the field of study (Christie & Derewianka, 2008; Unsworth, 2000; Lemke, 1988; Derewianka, 1990). Ms. Bird agreed I could teach this language any way I wanted, and that she understood that I had never taught scientific language and this was a pilot unit. She also understood that I was working on developing a possible case study for my dissertation, and that I was interested in teaching academic and disciplinary language and reflecting on the process.

Ms. Bird also confessed to me at the conclusion of our second meeting she was relieved. She shared with me that the CCSS goals had been handed to her at city-wide meeting during the summer meetings, right before the beginning of the school year. She recalled that at this meeting that all of the city’s secondary (grades 7-12) science teachers were told by the CCSS coach “you need to teach the students writing and language now” (her recollection of a curriculum meeting, August 2011). She understood that this curriculum shift was a reflection of the school’s transition to CCSS curriculum, but she

also explained her confusion, in that she had not participated in professional development on scientific literacy, nor was it part of her graduate studies. As such, she was not really sure how she was supposed to learn to teach this way. Figure 14 is a copy of the language goals from the CCSS that were handed to Ms. Bird at the beginning of the year.

**CCSS/Academic Language goals for grade 7 science**

- Use precise language and domain-specific vocabulary to inform about or explain the topic.
- Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
- Establish and maintain a formal style and objective tone.

(National Governors Association Center for Best Practices &

Figure 14: CCSS Academic Language Goals for Grade Seven Science

With these CCSS language goals, I developed my instructional content objectives. I wrote these language goals to reflect the language I felt would support the informational text unit on bats. Together, with Ms. Bird, we decided on the following goals:

**LANGUAGE GOALS:** Informational Text Unit | “Something is killing our bats!

Reading and writing like scientists; The White Nose Syndrome investigation.”

**Language goal #1:** *Students will be able to use precise language and domain-specific vocabulary to explain varied aspects of endangered species, in particular hibernating bats, with the SFL resources of field.*

**Language goal #2:** *Students will be able to use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and scientific concepts in both expert texts and their own scientific writing.*

**Language goal #3:** *Students will use knowledge of register choices to maintain a formal style and objective tone akin to scientific discourse.*

I then wrote a unit using the curriculum cycle to roughly outline how I would teach these language goals.

### The Curriculum Cycle

I used the curriculum cycle to then design how I would lay out my instruction based on the unit plan and the combined language and content goals. Recall the curriculum cycle is a phased, cyclical approach used when designing curriculum that supports teachers in designing lessons for students with language and text objectives. The first phase, *learning about the focal field* was supported with the texts from the FWS officer. Using some of the first tools I introduced with SFL (see Chapters 5 and 6 for more on my curriculum and student response), we read texts on bats together and students kept logs as to what questions they had about the bats, as well as the endangered species they were studying with Ms. Bird in science. During this phase, I introduced students to the *explanation*, as a common genre used in science classes (Christie & Derewianka, 2008). To introduce this genre, I relied on the various explanatory texts on bats, migration, hibernation, gestation and WNS provided by the WNS officer. I named these texts as examples of the genre a scientific explanation. Instruction focused students to make observations on what aspects of the texts were maintained across each one, and what they thought made a text a scientific explanation. We then deconstructed the texts, reflecting the curriculum cycle's second phase, *deconstructing expert texts*. I broke two of the texts into clauses and made worksheets focused on different aspects of the language used in scientific texts, mostly focused on the SFL register variable field. Students also named genre moves in the deconstruction phase.

During these lessons, students also became more interested in the high mortality rate of local bats, especially after the FWS officer came to visit them at school, gave a presentation and continued to keep in contact with them after her visit—even mentioning them on her blog. They expressed that they wanted to write letters to the government to earmark funds for bats as the FWS officer had suggested that the government was not paying attention to how many levels of the ecosystem are impacted by bats. I had originally agreed with Ms. Bird that I would assign an open response question with a scientific focus to serve as the unit’s assessment but the more excited my students became about writing letters, I sought permission from administration and Ms. Bird to alter the writing assessment. Since the academic language and literacies required by both CCSS and assessed by PARCC were far more extensive than the open response captured, I used my CCSS language goals as a justification to my school administration for pushing beyond the open response curriculum, highlighting to them that the open response was not really reflected in CCSS scientific literacy benchmarks or PARCC pre-tests. I also added an additional writing goal, also based on CCSS:

**Language goal #4:** *Students will be able to write a scientific explanation within an advocacy letter.*

As excited as my students were to communicate their concern to the federal government about the demise of the local bat population, I realized that they may not have experience with writing advocacy letters. I decided to augment the length of the unit. In response, I designed more instruction based around understanding a text type. I wanted my students to analyze and deconstruct other advocacy letters already written on



behalf of other environmental problems, naming genre moves as we had when deconstruction the scientific explanation. This lesson was an extension of cycle phase 2, *deconstructing expert texts*.

Students also expressed that they wanted to learn to sound official when writing to the government (field note, 12/2011). I explained this was controlled in language, or our classroom word, register. Using the curriculum cycle again, I cycled back into phase 1 and phase 2 to help students understand how to emulate the language of a professional and scientific register. In these lessons, I taught students the grammatical resources connected to scientific and professional advocacy writing, namely nominalization and a highly developed content base in order to discuss their position professionally (a mix of field and tenor). I also taught students to change a word's part of speech, language lessons focused on how scientists use grammatical metaphor. An example I provided in Chapter Three was restating verbs as nouns, like *to hibernate* becomes *hibernation*. When working with scientific texts, I saw this pattern used in many texts where the author "sounded official."

With a working understanding on the content of the problem, the field language, grammatical metaphor and the genre of a scientific explanation and an advocacy letters, students then set up letters in class with me during a lecture, reflecting Phase 3 of the cycle, *joint construction of texts with experienced practitioner*. Throughout this phase of instruction, students, including Kia and Tally, were beginning to make choices about their letters on their own, or what is described in phase 4 of the curriculum cycle, *students moving towards independent text construction*. Each of the included phases were

intended to spiral inward towards language goals, circling toward independent control of language and writing, as I removed myself slowly and allowed them to write the letters with less help from me. In all, my students planned their genre moves of each of their letters independently, then wrote a rough draft, had a meeting with me to go over the draft and the rubric (see Appendix 5), and then wrote a final draft of their letters independently.

At the conclusion of the unit, I sent student authored letters (all with a scientific explanation included to satisfy unit assessment) to the following federal officials: Senator Elizabeth Warren (D-MA), Senator John Kerry (D-MA), Secretary of Agriculture Thomas Vilsack, Secretary of the Department of the Interior, Kenneth Salzar and our Congressmen Jim McGovern (D-MA). Students waited eagerly for their responses, which trickled in slowly between January through March. As most students had wanted to hear from the Department of Agriculture (the most popular choice), the arrival of this response letter in March was highly anticipated. Students were very unhappy with the quality of the return letter, which I will discuss in the findings from this unit in Chapter Six.

In subsequent curricular units, I continued to write learning based objectives and used the curriculum cycle to inform my curriculum. Students also responded with more metalanguage to discuss academic language and literacy practices. I also continued to learn to write a language objective in tandem with a content objective. I aligned the remaining curricular units with both content and language objectives. I discuss my experience with this process in Chapter Eight.

## Conclusion

The context of public schooling is in flux right now. With a move away from tracking, differentiated instruction, CCSS and an ever changing multicultural, multilingual population, there is a demand to restructure curriculum to reflect contextual shifts. At the conclusion of teaching this unit, I reflected as a researcher and also as a teacher as to how I designed the unit on WNS. As a researcher, I wrote and reflected in my field notes about how many factors go into curricular decision making when considering language as a central factor in instruction. As a teacher, I felt that writing a unit this way helped me understand the benefit in teaching students more about the language and texts that they read and write at school, and in turn, the impressive level of engagement students demonstrated as a result of instruction designed to include them in the field of practice.

Rather than a singular case study, I began to see my research as phased, teaching students about the language in texts they read and write was also a reflection of how I was learning to teach in a particular context. These research phases are explained in the methods section, Chapter Five. Chapter Five explores the various methods used to support the analysis of this work. Chapters 6 and 7 discuss the findings in response of my research questions and student writing as a result of participating in a curricular unit with language goals. And as stated, my experience as an SFL practitioner are deconstructed in Chapter Eight, where I explain how writing a unit with language goals serves as a shift in instructional design.

## CHAPTER 5

### METHODOLOGY: CONNECTING TEXT AND CONTEXT IN A MIDDLE SCHOOL ENGLISH CLASSROOM

#### Introduction

To support my research questions and to discuss how my students participated in an SFL-based language curriculum over the course of the 2011-2012 school year, I used methodological tools from various qualitative methodologies (Merriam, 2009), including the tools critical discourse analysis (CDA) to support the design, data collection and analysis of this work. Of note, I locate CDA tools within the SFL methodologies and use CDA and SFL as analytic tools interchangeably in this dissertation (see Jaworski & Coupland, 1999; Fairclough, 1992).

#### Locating the Macrocontext

Aspects of this research are in response to the macrotextual influences currently impacting public schools (Cazden, 1982). Cazden (1982) defines the macrotextual environment as the influences on classrooms, teachers and the texts they choose. Cazden argues classroom texts are responses (or rejections) to political mandates and educational reforms. Her research is relevant, given the pressures secondary English classrooms throughout the United States now face during this transition to CCSS. There are many contextually significant components of this transitional time to consider when defining the macrocontext: the environment of high stakes testing; the new CCSS language benchmarks that include academic language expectations for all content-area curriculums; the emphasis on the mixed-ability classroom in place of tracking; the

continued value placed on standardized literacy scores; and the questionable standardized literacy curriculums that have been the yield of these educational reforms. Dyson (1993) explains research methods must reflect the macrocontext when studying student writing, in that “children’s writing cannot be studied separately...to separate [it] is to separate from social existence...” (p. 79), while Cazden (1982) suggests that language and literacy research that includes a microtext analysis must necessarily explore the influential macrocontextual structures. She emphasizes that “there is a need in research to link microlevel practices with the macroanalytic structural forces that contributed to their conditions of possibility in the first place” (Kamberelis & Dimitriadis, 2005, p. 73-4). I discuss the macrocontextual influences that impact my students in Period 5 and their responses, evaluated with a microtextual analysis.

#### Locating the Microcontext

Cazden (1982) explains that in research, if the macrocontext is the political environment shaping decision making in schools, then the microcontext is the focal classroom. She notes that locating the context is different than describing it, as I did in Chapter Four. Locating a context is to explain how the context will be studied in ways that reflect the macrocontext and what methodology a researcher will employ to support data collection in a particular context. For my work, I needed to locate my initial inquiries in methods that linked both micro/macro angles of text analysis into a larger project design. I also needed a manageable strategy to allow me to do this, as I was the teacher and the researcher, and teaching a curriculum for the first time. In short, I needed methodological tools that reflected the situation: collecting data in my classroom, under

the transition to CSSS, piloting language lessons I had never tried before while studying both my students and my teaching. The data collection in this context required methods that could assist me in both focused and organized data collection as well as a methodological system supporting researcher objectivity.

To develop my inquiries on a piloted language pedagogy, I relied on methodologies associated with the field of qualitative inquiry that would allow me to describe my environment with rich description as well as discuss and explain aspects of the language pedagogy as it unfolded. Much of the methodological work I used to understand my classroom context as a response to the macrocontext was supported with case study methods (Dyson & Genishi 2005), a methodology that prioritizes a focused time bounded research project but also one that emphasizes the context through rich description of varied levels of an environment. I also used the tools of ethnographic data collection (Heath & Street, 2009) to assist with a “thick description” of the participants and the classroom context (Geertz, 1973, p. 6). I depended on other qualitative tools as well to support organizing the data and seeking emergent findings describing the way students used a metalanguage to respond within the context of the macrotextual environment over the school year and to analyze student texts. Each of these methods are explained in detail in the methodologies section.

### Methodologies

#### Critical Discourse Analysis (CDA)

My initial inquiry questions (Bogdan & Biklen, 2003; Merriam, 2009) focused on whether or not there were relevant changes in student writing and academic language

control as I used SFL to inform my curriculum. My early instructional goals were to use multiple aspects of SFL in my teaching to support students in academic language learning. I focused on the language that supported content-area literacy demands and the high stakes genres my students faced as the Northtown school district was in a fast transition to a CCSS curriculum. While other research questions evolved as the project grew, these questions remained constant throughout the work; my research methodology and data analysis would include a close analysis of focal students' texts. I planned to analyze these texts with the tools of critical discourse analysis (CDA), using SFL as the discourse analytic tool (Eggins, 1999). The SFL register variables (field, tenor and mode) serve as dimensional tools to conduct a close analysis of student texts and then comprehensively discuss if there were shifts or changes in academic language and writing.

I was particularly interested in looking at the textual practices of students like Kia and Tally within the context of a heterogeneously mixed-ability classroom in a high stakes testing environment. Traditionally in schools like Northtown, they would have been placed in the lower-ability classes rather than unleveled mixed-ability classes (see Chapter Four for more information on de-leveled classes). One interest I had was around how academic language learning operates for students similar to Kia as a recent graduate of ELL. Recall Kia explained to me that she thinks she speaks L2 English but she carries on conversations in colloquial English with peers. Yet her writing makes almost no sense at first glance—her open response from the fall included: misspelled words, disjointed sentences, no main idea, no cohesion and very little relevant content. Much of her writing

was that way throughout the fall, if she submitted writing at all. Tellez and Waxman (2004) explain students like Kia demonstrate a particular struggle with academic literacy and language once they are fully mainstreamed into English only classes with grade level peers. On students who no longer require ELL programming, Tellez and Waxman (2004) describe while these students have mastered some English grammar, they have not had the time to learn the language of school, in that “these ELLs have had little chances of gaining the fluency and thereby the accuracy needed to participate fully in schooling” (Tellez & Waxman, 2004, p.9) Thus, the unfamiliar content coupled with distinctive grammatical patterns and content-specific vocabulary are even more difficult for L2 students as they are mastering English and academic language in tandem (Schleppegrell, 2007; Gebhard et al., 2014; Tellez & Waxman, 2004). Using SFL to not only teach Kia but conduct a microtextual analysis of her work supported this inquiry on learning more about supporting recent ELL grads in my English classroom.

Students such as Tally and their textual practices are also important to look at in this macrocontext. While Tally does speak English as a first language, her English is dialectical and her educational background has been disrupted by a series of factors. She explained that most of her conversations at home are with her younger siblings and her neighborhood peers. Weaving together textual patterns with language in her school writing presented as significantly difficult for her and would remain as such without instruction to expand her semiotic choices. An analysis of her work would also support this project’s goals of inviting criticality into the experiences of my participants.



With a full SFL register analysis on this pair of students texts at the start and finish of the project, I felt I could learn about how language learning worked in response to SFL instruction. Using the tools of SFL in this way, to analyze student work, also interested me as a researcher. The dimensions of SFL would provide a more thorough analysis of strengths and weaknesses of students labeled as “struggling” or “ELL graduate” or “below grade level.” In sum, by doing a close analysis of their work with the tools of SFL, I wanted to understand how to support students such as Kia and Tally that now face grade level academic literacy expectations in de-leveled classes.

### Qualitative Case Study

To observe how students responded to the language pedagogy, this project needed to reflect a large portion of the school year. This work also needed to have a focused and finite time frame within the school year, where data collection was extremely focused and when student participants were more closely observed than usual. Rather than treating the study as an ongoing and lengthy ethnography, which many educational researchers do when trying to find pedagogical trends in classrooms over a school year, I chose instead to use a qualitative case study to frame the design and to support the majority of this work (Dyson, 1993; Dyson and Genishi, 2005; Merriam, 2009). Case studies privilege a bound unit of analysis, or a “time frame focused on analysis of a person, a group of people, a speech event, or phenomena, of which the researcher is seeking to define underlying principles” (Merriam, 2009, p. 48). Case study researchers rely on the tools of qualitative inquiry and the subsequent data collection practices, but they also use this bounded system as a methodological tool to help look at “a particular program, or a

particular classroom of learners that demonstrate an instance of some process, issue or concern” (Merriam, 2009, p. 49). With this method, I could focus on the bound unit of analysis as well as use data from outside the set time frame to discuss how students responded over time. Many studies within teacher-research use case study methods because of the bound system, suggesting this boundary supports the teacher with managing the study’s research design and data collection (Cochran-Smith, 1993).

Like many qualitative researchers, I began by “casing the joint” (Dyson & Genishi, 2005, p. 42). This informal entry into the research site was made easier because this was my first year at Northtown Middle School and learning the culture of a new school is an important practice for any teacher. I kept a journal for the field notes on me and brought it to all curriculum and faculty meetings. This practice is similar to ethnographic methods where ethnographers are encouraged to spend a great deal of time entering the field without *a priori* expectations or formally developed research questions. In both of these methods, this time involves observing many dimensions of the environment before committing to the research questions. Bogdan and Biklen (2003) encourage ongoing inquiry questions (IQs) during this time and recommend qualitative researchers (especially ethnographers) record all questions they have during this entry period. Part of casing the joint is observing how initial inquiries ebb as the researcher learns more about the macrocontext; but case study research remains distinct from other qualitative methods in that the researcher must eventually develop a case to study. The final research questions evolve out of this focused case. Case study research encourages flexibility in naming, focusing and refining the bound unit of analysis, as change

throughout research is a necessarily responsive feature when using data analysis to continually inform the direction of the ongoing research, or in this case, my instruction (Kamberelis & Dimitriadis, 2005). For some time, the bound unit is still to be looked upon as flexible, unstable and permeable. Eventually, a case study researcher must commit to a pliable and fixed set of inquiries to shape the final design.

The boundary of case study research also helped inform my study's eventual unit of analysis; the instructional unit on informational texts, bats and WNS. Middle school teachers often organize the school year around a series of units based on connected content. Recall, my first unit was on the elements of fiction, taught through a series of short stories and mini units. However, an instructional unit differs from the traditional content-bound unit such as the short story unit. Gebhard et al. (2014) describes the instructional unit as a content based curricular unit organized around language learning goals that reflect content demands students face within the unit's content. Language lessons are designed to support academic literacy development in response to the language demands of the unit's focal content.

Therefore, while I did begin the school year with some loosely connected inquiries on how my students responded to SFL based pedagogies throughout the year, the instructional unit on informational texts, specifically hibernating bats and WNS, serves as my formal unit of analysis for the majority of this study. The data analysis and the content reduction phase assume the unit on WNS as the unit of analysis as well, with the six weeks I spent teaching informational texts representing the bound unit of analysis.

Collectively, this unit of analysis connects my teaching, my students' experiences and their texts, reflecting my initial research inquiries.

### Ethnography

As the macrocontext became increasingly significant to understanding standardization practices and the high stakes testing environment impacting student learning, data collection tools of ethnography were needed to assist me in studying my classroom (Heath & Street, 2008). The tools used in my data collection most associated with ethnographic methodologies are: video-recorded lessons; formal and informal student interviews; transcripts of interviews and lessons; field notes of lessons; field notes of faculty and department meetings; emails; and artifact collection on all curricular materials during the WNS unit (Heath & Street, 2008; Davies, 1999; Emerson, 1995). These tools proved necessary for a thick description of the macrocontext (Cazden, 1982) and classroom culture and participants (Geertz, 1973). Ethnographic tools were also as a resource for teacher-researcher objectivity when it came to data analysis of a context that included me as a participant of focal study (Cochran-Smith, 1993).

### Critical Methods, Critical Pedagogy

My inclusion of the macrotextual description of the field site of my study and the microanalysis of the texts within it, aside from gaining significant data for my own research, was to use my research as a way to benefit focal participants. I wanted to emphasize uses of standardization on students who struggle the most. By paying particular attention to an elaborate register analysis for a few students, I could also learn for myself how to support other students struggling with controlling academic language

and writing in similar ways. Participant benefit is paramount in the methodological subfields which reflect critical qualitative inquiry, particularly in language and literacy research (Heath & Street, 2008). Critical inquiry and subsequent research methods have roots in other emancipatory theoretical and methodological sub types, where findings are informed by sociological theoretical traditions of empowerment and justice. Responsive methodologies must be used to focus the study on observing both the disparities and possibilities within the context, and designing and refining research methods that address the levels of inequality. To consider research critical, I needed to learn how to teach all students more about how academic language positions and constructs self and other in text dynamics. Kamberelis and Dimitriadis (2005) conclude that critical research and the subsequent methods used to study the context should prioritize not only participant benefit, but participant equality. They conclude that the research should “function as a political force to change material conditions so that economic and symbolic forms of capital are distributed more equally” (Kamberelis and Dimitriadis, 2005, p. 71). It therefore became important to focus on these aspects to frame this work as critical.

#### Teacher-Research

As I reviewed the tapes from the classes, I realized how central my role was in this research. I began to read more about teacher-research methodologies (Cochran-Smith, 1993). Teacher-research is a growing methodological field of qualitative inquiry in which teachers study their classrooms and use journaling methods and ongoing data analysis to discuss potentially resourceful generalizations for educational research gained from individual classroom studies. This kind of research also privileges design changes,

where teachers report on how their unit design changed based on the reflective experience of researching their classroom. It is described as an approach to scholarship that is “intentional, systematic, public, voluntary, ethical and contextualized” (MacLean & Mohr, 1999, p. 35). Specifically, I used a research tool that Cochran-Smith (1993) calls the teacher-journal, a tool to record my experience as the teacher in the study and to inform the research as well. I found the teacher-journal to be most useful for researcher memos, as well as during video review and transcription to observe the "teacher version" of myself turned “researcher version” of myself. It was an effort to notice and learn about teaching from a third party standpoint. This journal was also a space separate from traditional ethnographic field notes. Rather, I treated it as both a teaching diary and as a calendar of my work cataloguing my experiences in lesson design and creating worksheets (artifacts). I also used it for reflection, commenting on my lesson designs and language objectives. Ultimately, the teacher research journal evolved into a research tool useful for me to respond to what I was learning as I attempted to teach myself to teach with an SFL framework. I also noted how my students were beginning to respond to the instruction. This journal became an important contribution to the data corpus to assist with reliability of findings and was a particularly helpful resource for determining which instances of SFL metalanguage I intentionally taught and when the metalanguage reflected student re-voicing. It was the primary data source I used to write this methods chapter, a tool I could look back on to see both my timelines for various aspects of my instruction as well as my mistakes and successes in this process.

Figure 15 is a transcribed portion of the early stages of my teacher-research journal. I organized my first responses based on what I was teaching, why and what I noticed about my own experience. I reflected in my journal my decision to introduce mini lessons, or lessons with a learning objective that are not necessarily part of a unit but intended to teach a specific language goals. Then, I would write up my experience in teaching. For example, with mini lessons focused on language, I could practice teaching this way without too much commitment to a full blown project, and then I could reflect upon my initial attempts in my journal.

Date/SFL Construct	Mini lesson in response to short story curriculum	Student response
9/12/11 Genre (Genre)	First unit per school curriculum: short stories Unit called for assessment of fixed plot chart features.	Applied <i>In medias res</i> as author's attempt at "messing with the genre" (Transcript)
<i>My notes, 9/13/2011: I think I did this ok for a first try at teaching genre as flexible. Students had learned the traditional plot chart many times in their ELA classes before, but the story we were reading did not follow the plot chart. I encouraged them to consider that stories can have stages in different orders, even though the plot chart insists that all stories start with "setting" and then "problem" and then "rising action"....</i>		
9/21/11 Genre (Genre)	<i>Genres: Explanation, Argument, Narrative</i> Looking at genres in the work place. Part of CCSS grade seven benchmarks too. CCSS benchmarks define three genres: informational, argument, narrative. I used this language and attached this to the working world.	Transcript "Lawyers use hybrids because they explain and argue so much..."
<i>My notes, 9/22/2011: Students were struggling to see "genre" and I was struggling to explain it in the abstract. Short stories were also not a great way to explain genre—genre stages work well in short stories, but students still did not seem to see that text types respond to use. Using vocations was helpful. I tried to introduce genres and stages at the same time. Dumb! Just name genres for what they are doing.</i>		

Figure 15: Transcription from my Initial Teacher-Research Journal

As I could go back and read my teacher-research journal, even while still collecting data, I began to see my project shift and change in response to what I was learning from the SFL mini lessons. I wrote down my process and justified my changes underneath the description of the mini lesson, as seen Figure 15. Through the process of reading my journal, I also began to see my research in phases. Phases are defined as segments of the research process (Kamberelis & Dimitriadis, 2005). I organized the phases based on what I was learning, my response and the next steps I could possibly take in my teaching. In short, as I became better at teaching SFL, I moved toward developing a language based content unit.

I have organized the description of my methodology and this project into the four phases of data collection followed by the ongoing process of closely analyzing student texts throughout the phases. I determined these phases when reading my journal both during the research and at the conclusion of my research experience. Each phase represents a significant shift in the research, a time when I either recast questions to promote sub inquiries or added questions based on what I learned about the context. In each phase, I have included the research question and the methods I was using to support and shift the project. Table 4 captures the intersection of inquiries, research questions, methods, theory and methodological implications and practices of each phase. The phases are then explained in detail in the following section.



Table 4: Data Collection and Responsive Design. Timeline of Study.

Project Phase/time of Phase	Informal Inquiry (IQ) or Research question (RQ)	Aspect of project focus	Methods	Methodological response/ Data collected
<b>Phase 1</b>  Dates: Late August 2011- November 8 2011	Inquiries: >How can I design a classroom pedagogy with SFL?  >What are the entry points for this kind of pedagogy?  >Should I introduce genre separately from SFL register variables?	Casing the joint  Introducing SFL/GBP into instruction with mini lessons	Case study	Enter the field-observation and description with field notes  Close analysis of CCSS  Write thick descriptions of classroom context (Geertz, 1973) from classroom videos and lesson plans
	RQ #2: How did my students' textual practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?	Student text analysis	Critical Discourse Analysis  Systemic Functional Linguistics	1. Transcribe interviews with focus group  2. Convert student written texts to typed text files  3. Full register analysis of initial samples  4. Quick register analysis of student writing over the fall.  5. Generate notes on full and quick analyses to inform Phase 2 instruction and mini lessons.
<b>Phase 2</b>  November 8, 2011— Thanksgiving 2011	RQ #2: How did my students' textual practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?  RQ#1 How did my	Metalanguage Student text analysis	Case Study	Transcripts of lessons; instances of students discussing language in the abstract  Early Phases of coding-  Quick analysis of student writing over the fall

Project Phase/time of Phase	Informal Inquiry (IQ) or Research question (RQ)	Aspect of project focus	Methods	Methodological response/ Data collected
	instruction change over time as I implemented an SFL based pedagogy to support academic literacy development in my classroom?	Focal Participants	Ethnography	<p>Formal interviews: Kia and Tally</p> <p>IRB gained from University</p> <p>Full permission from families</p> <p>Artifact collection of Kia and Tally work, catalogued</p> <p>Video transcripts of all interactions with both students</p>
<b>Phase 3</b>  Dates:  12/1/2011— 1/18/2012.	RQ#1 How did my instruction change over time as I implemented an SFL based pedagogy to support academic literacy development in my classroom?  RQ #2: How did my students' textual practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?	Bound unit of analysis	Case study  Qualitative case study	Focused data collection in instructional unit on White Nose Syndrome  Initial codes generated: <ol style="list-style-type: none"> <li>instances of metalanguage use in instruction</li> <li>instances of prompted metalanguage use in student discussion</li> <li>instances of metalanguage used in classroom artifacts (generated by my students and by me)               <ul style="list-style-type: none"> <li>3a: Metalanguage to discussion revision of texts</li> <li>3b Metalanguage to analyze text features</li> </ul> </li> <li>dependency on previous fixed structures (e.g. open response)</li> <li>instances of student analysis of text features using SFL metalanguage unprompted.</li> <li>instances of students using SFL/GBE theoretical metalanguage (e.g. lexical chain, Theme/Rheme)</li> <li>instance of students inventing metalanguage</li> </ol>

<b>Project Phase/time of Phase</b>	<b>Informal Inquiry (IQ) or Research question (RQ)</b>	<b>Aspect of project focus</b>	<b>Methods</b>	<b>Methodological response/ Data collected</b>
<b>Phase3/ Phase 4</b>	IQ: How will I organize my research around phases?	Phases based on teacher journal and reflection.	Teacher-Research	Teacher-research journal
<b>Phase 4 1/8/12- 3/15/12</b>	RQ#1 How did my instruction change over time as I implemented an SFL based pedagogy to support academic literacy development in my classroom?  RQ #2: How did my students' textual practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?	Metalanguage as critical  Language to support a writer's identity  SFL as critical analytic tool for students	Case study  Multitieracies/ Design  Critical discourse analysis	Observe, record and analyze student generated metalanguage  Second full register analysis  Second formal interview  Content reduction with collapsed codes: 1. Student generated ML 2. Changes in conceptions of genre 3. Instances of language as explained as a system
<b>Final analysis 6/2012- 6/2013</b>	RQ#1 How did my instruction change over time as I implemented an SFL based pedagogy to support academic literacy development in my classroom?  RQ #2: How did my students' textual	Corpus assembly	Case study	Data Saturation
		Content analysis	Case study	Committing to trends reflecting unit of analysis
		Participant analysis, microtext	Ethnography	Second and third student interviews with Kia and Tally

Project Phase/time of Phase	Informal Inquiry (IQ) or Research question (RQ)	Aspect of project focus	Methods	Methodological response/ Data collected
	practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?  Inquiry: How will I account for how meaning is constructed?	Analyzing shifts in Kia/ Tally writing over the entire project	Critical Discourse Analysis  Systemic Functional Linguistics	Final register analysis of student texts.  Analyze trends in student writing over time using SFL and genre to discuss shifts

### Phases of Data Collection, Responsive Design and Timeline of Study

Phase 1: Late August, 2011-November 8th, 2011

Phase 1 is was focused on my process of learning to teach with an SFL informed lesson goals. I also include the time spent casing the joint or learning about the context. I had three initial inquiry questions (IQs) in my teacher-researcher journal before school began:

- > *How can I design a classroom pedagogy with SFL?*
- > *What are the entry points for this kind of pedagogy?*
- > *How will I use SFL critically and still teach CCSS?*

As I prepared SFL to use SFL as part of the project, I relied on doctoral coursework focused on using SFL as a CDA tool. I planned on using these language analyses to study changes in student texts and discuss them with SFL register resources. Therefore, in the earliest phases of data collection, I decided on my first research question:

*How did my students' textual practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?*

I remained open to trying out SFL informed instruction but did not commit to an instructional unit plan at first. Instead, I taught SFL through a series of mini lessons

throughout my first content unit on short stories. I had permission from families to use a video camera in my classroom, so I would tape the lessons where I was introducing an SFL concept. Sometimes the lessons supported a language feature of short story we were learning (e.g. *in medias res*, dialogue, flashbacks), while other times they were isolated language lessons. When reading over my teacher-research journal at the end of the project, I concluded that much of Phase 1's research and methods were more about my learning curve than student learning. I was learning to introduce language learning goals to support my content area instruction, learning to collect data while teaching and developing ways to reflect and shape instruction based on what I was learning.

After narrowing my research down to only one class period, I began to watch the videotapes on the weekends of Period 5 and write field notes off of the tapes. I would note any instance of students talking about language abstractly and transcribe the aspect of the exchange. I also began a very detailed collection of all curricular materials, necessary to keep up with the expansive artifact collection. As I narrowed down my focal group to Kia and Tally, I began making photocopies and scans of all their work for a separate artifact binder which I organized chronologically and wrote a quick summary of lesson materials.

During my first attempt at this kind of language instruction, I designed small mini lessons using the aspects of SFL I felt comfortable with: lexical chains, naming genres functionally (e.g. argument) and the field variables: participant, process and circumstance. I decided to begin with teaching mini lessons on rethinking genre as it was an organic instructional focus immediately following the open response meetings. I

justified these lessons due to the shift to what appeared genre-based benchmarks in CCSS. I taught students to name genres based on what they were doing: arguing, retelling, narrating, explaining. I then discussed with students how texts could have variation in the organizational patterns but still accomplish the same goal. I used the open response meetings as an entry point into introducing genre as staged and responsive to context rather than fixed structures they had learned before. When analyzing video data at a later date, I concluded that my language goals seemed more focused on trying to break students of these fixed descriptions of texts rather than trying to teach genre in the way I theoretically understood it. However, I soon moved beyond this. None of the students presented as attached to the open response “rules” they discussed at the start of the year and there was no evidence of pushback as I tried to interrupt this type of writing.

I then introduced students to a text’s register as the language choices in texts that authors choose based on the type of text they were writing. To highlight how register worked, I used a worksheet I made on the impact of Hurricane Katrina on the people of New Orleans. I purposefully conflated registers and voices on this worksheet as a way to highlight for students that they already had expectations of registers (see Appendix 4 for the worksheet). Students easily identified where I conflated registers in strange ways on this worksheet, such as using a joking tone on a serious topic like Hurricane Katrina or repeatedly announcing a shift in ideas by enumerating them. As seen in Figure 16, a portion of a transcript from the Hurricane Katrina and register lesson from October 2011, Tally discusses register unprompted. In this transcript, she describes language to me as “annoying” based on the text’s purpose. This transcript is taken after six weeks of SFL

mini lessons.

Tally: I think this author is joking. Or else the register is just super annoying.

HG: Why do you think that?

Tally: The point of the text is how Hurricane Katrina ruined New Orleans and, umm...it was like pretty bad on the poor people there, but then like... this author adds in stupid jokes and baby words that are annoying. The topic isn't funny.

Figure 16: A Transcript from a Mini-Lesson during Phase 1

I continued to try and introduce language objectives and mini lessons in this way, but I also wanted to try to teach language that reflected our current content. During this unit, we looked at the ways language and genre work support fiction. To begin, I described register as the choice authors have to develop characters using dialogue. We analyzed dialogue in short stories and named the registers that contributed to characters development. We also looked at how academic language works in the literary elements they were learning, specifically at how a verb's tense supports a text's flashbacks and foreshadowing literary elements.

Naming tools of fiction, such as flashbacks and foreshadowing by verb tenses, we began to consider fiction as a genre that did not respond to entirely fixed stages as students had been taught in the sixth grade. Students reconsidered the school's fixed plot chart from their previous year (see Figure 17a). In this plot chart, students were taught that every story has a problem, rising actions, a climax, falling actions and a resolution. Using Frank Stockton's short story *Lady, or the Tiger?* a short story that does not have a falling action or a resolution, I encouraged students to challenge the plot chart noting that

messed up Kingdom

more: move: sub plot/prob.

Prob. 1

boyfriend (resent)

love interest

daughter finds out which door

Climax (fish)

END

No resolution (Whaaaaa)

Prob. 2

don't relate

moves

more: Setting

**Plot**

**Rising Actions:**

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_

**Climax**

**Problem/Situation**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Falling Action**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Resolution**

\_\_\_\_\_

\_\_\_\_\_

Figure 17a: Northtown's Fixed "Plot Chart"



I recorded in my journal during this initial instruction that students were less anxious about using this expansive language than I was. When reviewing the videotapes, I note during Phase 1 that students are beginning to respond to questions about language with more questions about language. For example, in late October 2011, Molly asked me about topic sentences and genre stages in a paragraph we were writing on the theme of the short story *Holding* by Lois Lowry. Molly is a secondary participant in this study, described in Chapter Four as an accelerated learner in Period 5. Figure 18 is the transcript taken from a lesson focused on writing an argument paragraph about the theme of a short story. Her question is about the language of her argument essay necessary to validate what she thinks is the short story's theme.

Molly: Ms. Graham, shouldn't I **explain what happened in *Holding* after the topic sentence in this paragraph?**

HG: If you want to. But why do you want to do that? Just curious.

Molly: So I can use **sticky words** between my argument and the story, and then prove my point. It makes me seem more "right" (Molly uses air quotes)

Figure 18: Molly Inquires about Language  
(Metalinguage in Bold)

In Figure 18, Molly explains genre stages when she inquires about adding in a stage where she wants to "explain the story...." She is also beginning to use a functional metalinguage to describe "sticky words" to "mix her argument" in order for her to prove her point better. As students were using this kind of "language about language," I decided to write mini lessons teaching students to use grammatical delicacy (Williams, 2000). To

do this, I had to move beyond the text levels of genre and register and introduce the elements of field to students, including the delicate categories. In my journal, I note that this felt like an instructional risk, as grammatical delicacy is more elaborate and may have been more difficult for students to find relevant. However, as seen with my first round of metalinguistic terms, my students were able to connect the processes (verbs) to the text type with relative ease. Figure 19 is an example of Tally's notes on connecting the verb choices in an informational text describing a newscaster's biography to the text purpose. As a class, we isolated the verbs from each paragraph at the bottom of the page to draw conclusions about the text. Note in the box on the side Tally writes "they explain Brain" [ meaning the verbs explain Brian Williams]. This kind of student metalanguage is further discussed in Chapter Six.

Processes or Verbs

P1	P2	P3	P4/5	P6
is has has	began worked became joining	took over has maintained named	launched has earned said was (awarded) called became has has moderated cover moderated	

they explain Brain

Figure 19: Tally's Notes on Processes in a Mini Biography

### Phase 1 Data Tool: The Teacher-Researcher Journal

As the teacher-researcher journal merged into a tool to both record my experience, write research memos and align both of these aspects of my research with my curriculum, I began to set it up in the systematic grid seen in Figure 20. Figure 20 is also continuation of the portion of my teacher-research journal seen in Figure 15 which I evolved to match relevant emergent patterns I began to see in my research. As I reviewed the classroom artifacts against my teacher-research journal during my ongoing analytical phases, trends began to emerge about how students were using metalanguage to describe varied text levels (genre, register, words, punctuation). These trends informed my decisions on which SFL metalanguages to introduce and whether to respond to curricular requirements, weaknesses in student work or to demonstrate to administration my efforts at implementing CCSS. Figure 20 indicates which constructs were introduced, at what time of the year and the guiding rationale. I began reflecting on how my students explained the language I was teaching at the end of Phase 1, recorded in the last column of Figure 20. Metalanguage is in bold.

Date/SFL Construct	Curricular Rationale and my experience	Student use
10/9/11 Register (Field)	Extremely difficult short story as part of short story unit... <i>The Lady or the Tiger?</i> (Stockton). We needed language to discuss particular word choices by an author, and how difficult language impacts authorial credibility and audiences differently.	<b>“Hard register and easy register”</b> (on discussing text difficulty)
10/8/11 Argument, discourse patterns, Stable/ optional aspects of genre (Genre)	Demonstration of how often genres can be reflective of cultural expectations/analysis of how we argue when we talk. Used the short story <i>The Wife’s Story</i> to discuss dialogue. Students were encouraged to make judgements about the language used in dialogue.  <i>“He hadn’t got any game at all, not so much as a field mouse, but he wasn’t case down about it.</i>  <i>“It bring the shivers on me now to think about it, hearing it, nights when I’d stayed home fem meeting when the children was babies—the singing’ coming up through the trees...” (LeGuin, 1978)</i>	<b>Talking register and writing register</b> (transcript, 10/4)  “I know these characters are from the south because of their <b>register</b> choices.”
10/13/11 Process delicacy in connection to biographical writing	Brian Williams biography. Students learned to identify verbs in context. Previous lessons on verbs were difficult for students. Focus on language resourceful for biographical writing.	<b>Verbs that explain someone</b>
10/15/11 Lexical Chaining (mode)	Curriculum meeting at work, urged to teach more non fiction than fiction per requirements of new common core. So, I used “Nobel Peace Prize” announcement from NYT. Students had to use varied colors of chains to track each winner (e.g. Nobel Prize/Medicine vs. Nobel Prize/Peach) with language resources maintaining this person’s award and achievements.	<b>Lexical chaining—</b> students discussing it as something they do on texts to track main idea.
10/28/11 Authoritative language (tenor)	After reading second drafts of arguments (see 10/3), I noted that students needed to better understand social distance when writing. Argument writing was inconsistent with register choices such as “I think” and “kinda” and “this is why” in place of conclusions. I used a worksheet I made called “Hurricane Katrina” (Appendix 4). Students noted that when the language in the model text broke expectations, they were ‘annoyed’...	<b>annoying language</b>

<b>Date/SFL Construct</b>	<b>Curricular Rationale and my experience</b>	<b>Student use</b>
10/24/11 Cohesive devices (mode)	As students progressed through a series of argument essays on theme, what struck me about their texts was the lack of cohesive devices and internal referencing potential. Introduced texts as full of glue, students (Molly in particular) named sticky words.	<b>sticky words</b>
11/1/11 Logical sequencing revisited Argument genre revisited (Genre, Mode/ Ideational MF)	Student work demonstrated more support necessary for most logical order of information when constructing an argument.	<b>Ordering</b>

Figure 20: Evolved Transcription from my Teacher-Researcher Journal

In my journal, I began to code an established trend that emerged in the earliest stages of data induction and open coding. Qualitative researchers label their data from the earliest phases using open codes. What I was coding was how my students were using the SFL metalanguage somewhat to discuss the impact that language had on them in different types of texts. In addition, they were renaming the language into like concepts that made sense to them (e.g. “sticky words” and “annoying language”) distinct from language they used to describe texts at the beginning of the year (e.g. “adjective”). Seen in the third column of Figure 20, the “student use” column, students conflated multiple SFL/GBP theoretical constructs into terms that reflected both our classroom language lessons and their eventual writing assignments. As adolescents, they were excited to become critical of language choices, mixing register with personal expectations. Students said they could

“tell when the speaker was from the south” and when authors were “annoying.” This invited space for instruction around efficacy of language, dialects and recast how we discussed language in my class as unstable and dialectical rather than standard. Students also continued to discuss genres in terms of professions and use of writing at work throughout Phase 1. In one transcript on 10/18/2011, we were discussing the previously mentioned text about Hurricane Katrina. After I suggested the importance of multimodal text features used by a meteorologist who may have better explained Hurricane Katrina, Tally shouted out mid-lecture “no, no Ms. Graham, that’s a genre thingy for the television, to share the news with pictures, but it won’t work in English. We need more words and less pictures” (transcript, 10/18/2011). Using professions to discuss genre types became an important aspect of discussing informational texts which I began to do with my students at the conclusion of our short story unit. This instruction is discussed in Phase 2.

Finally, during this phase, I also collected five more open response writing assignments from both Kia and Tally. As part of the short story unit I was teaching, focused on the elements of fiction, the students had to isolate an element of fiction and prove how it was included in each focal short story. This curricular decision was top down, an effort to align the existing short story unit with CCSS emphasis on writing and the school’s urgency to boost the open response writing scores. During this data collection process, I did not complete full register analyses on Kia’s and Tally’s open responses over the fall, but I did what I have referenced as a quick SFL analysis (See Gebhard, Chen, Graham and Gunawan, 2013; Macken-Horarik, 2008, 2012). In the SFL

based pedagogy research, there is acknowledgement of how sizable SFL is as a theory, but that teachers with a functional and critical understanding of language may develop skills to evaluate texts quickly for strengths and responsible instructional goals supported with lessons based in field, tenor, mode and/or genre. In doing a quick analyses of both girls series of open responses, I was able to begin to make claims about entry points that would benefit both of them in academic literacy.

#### Phase 2: November 8, 2011-Thanksgiving, 2011

During this phase, I began prepping for my instructional unit. While reviewing tapes in early November 2011, I noticed students were not only discussing language and asking questions about academic language, they were beginning to connect language across the texts, seeing word choices as part of larger text-based systems. As I neared the end of the first content based unit on short stories, I felt confident that I could design a full instructional unit based on more sophisticated academic language goals as students were now capable of discussing register language. With the confidence gained from teaching SFL in mini units as well as the students' ability to discuss language in this way, I was able to transition from mini lessons to the formation of a comprehensive instructional language unit with language-based goals and using the curriculum cycle to phase my instruction. I had established data collection methods and data collection strategies, committed to Period 5 and had determined emergent research questions. I began to prepare an instructional unit on informational texts to serve as the study's bound unit of analysis. In Chapter Four, I discussed how I planned an instructional unit with the science teacher Ms. Bird based on varying macrocontextual factors (e.g. transition to

CCSS and her pressure to suddenly teach academic language). Recall I also had my contacts at FWS established during this time as well as a series of focal texts to build the unit around.

I narrowed my participant focus to Kia and Tally during the transition from Phase 1 to Phase 2. I contacted their families for permission as discussed in Chapter Four. According to the code of participant ethics, I informed them of my decision and discussed the beginning project design with them (Bogdan and Biklen, 2003). I did my first of three formal interviews with Kia and Tally in early November. In this interview, I asked each of them a series of questions about themselves, also discussed in Chapter Four. I explained what I would be doing in terms of studying their writing. We discussed our next unit together, previewing the material about bats. I explained that we would begin a unit on endangered species and writing like a scientist in the upcoming week to support the unit taught by Ms. Bird. I told them that we were working with an expert outside of school and I would need two bat reporters to act as a liaison between students and the FWS officer. I strongly encouraged them to ask the FWS questions about state of our local bat population when she visited, much like newspaper reporters. Kia and Tally expressed that they were excited to be chosen as participants but more importantly, they were excited to be the class journalists. They did not express concern, at least to me, that they were selected based on some of their struggles with writing. Kia did state that she “hated bats” and did not understand why I “chose something so gross to study,” while Tally was excited to be the class reporter and wanted to know if the job was permanent (interview, 11/2011).



I set both of them up with Google email accounts during Phase 2. On Google, students can use free software called Google Docs which resembles Microsoft Word and serves as free word processing software. With a Google account, a student can work on their writing anywhere they can find internet access. I learned as I was casing the joint that many of my lower income students did not have personal computers. However, some did own tablet computers which do not have software, only the internet. Others used the computer lab in their housing complexes or shared computers with neighbors and grandparents. Google Docs cut out costs of purchasing a computer or software as well as finding a place to save documents. Google provides 15 GB of free space associated with a Google account. Students can also “Google share” all of their writing via our shared Google accounts, meaning that they can simply hit “share with Ms. Graham” as one of their document options and it automatically becomes my document as part of my Google account. In my context, I found this cut down on printing costs and created an automatic data collection space for me. Reflecting on one of my initial research questions to use SFL to analyze changes (if any) in student texts over time (a research question that did not change during the entirety of data collection), it was resourceful to be able to keep track all of their writing in the shared Google accounts, specifically their five open response assignments on the elements of fiction that I did a quick analysis on, and the drafts and final bat letters. Both of them gave me written permission to cut and paste out of their “Google Drives” (online hard drive) whenever I wanted. With this tool, I was able to keep a vast collection of their work easily and chronologically. I could go back and search their Google Drives during data analysis as well.

### Phase 3: December 1, 2011-January 18, 2012

In the month of December, I introduced the unit to my students by asking them what they knew about bats. The majority of the responses had to do with bats as mythical creates in fantasy fiction stories, and bats as dangerous and as rabid. Some students mentioned they knew that bats were nocturnal. I explained bats to be endangered, and connected the endangered species of bats to their science class by teaching the five core texts about bats, focusing students on the genre of a scientific explanation. I kept an older, disconnected iPhone on me at all times and used the microphone recording feature in iTunes to audio record quick meetings with students as well as keeping the video camera on in Period 5 for every lesson, no matter the content or language focus.

After we had been analyzing scientific texts on bats for six lessons, the Fish and Wildlife Service (FWS) officer visited my students. She gave a PowerPoint presentation for my classes, providing students with print outs of her slides. She encouraged students to ask questions of her with their emergent understanding of WNS. Students prepared interview questions based on inquiries they developed when analyzing texts about bats. They recorded answers that were addressed during her presentation, imitating newspaper reporters at a press conference. Kia and Tally took their roles seriously as the lead reporters and mediated the majority of the conversation between students and the FWS officer.

The FWS officer then took my classes on a walk, showing them evidence of bats flying around during December when they should have been hibernating or at least sleeping during the daylight hours. Through this experience, students became invested in

slowing down the death rates of these bats near their school. The wildlife expert told them that the funding resources for prevention were so scarce that research, unless it was privately funded, had all but stopped on preventing the spread of WNS. She stated the situation was so grave that the federal government needed to get involved before hibernating bats in our region were beyond saving. Students in Period 5 eagerly suggested that perhaps we could write to representative government officials about federal funds, asking them to allocate government funds for more research and prevention efforts for the afflicted bats in our area as the FWS officer had suggested. The FWS officer gave me a list of federal officials, both executive and legislative, whom she felt would benefit from 91 letters of seventh grade advocacy! Along with my students in my other classes, we designed a final assignment together. This replaced the open response I had initially planned on having students write as part of the unit assessment when I met with Ms. Bird. Figure 21 is the final assignment that was co-authored by students in Period 5 and me to conclude the unit on bats. All students in all of my classes did this assignment and I obtained parent permission from all 91 of my students to send letters outside of school.

<p style="text-align: center;"><b><u>Assignment:</u></b></p> <p>(You will need permission from a parent/guardian for me to actually send the letter.) Write a letter to either Senator John Kerry, (D-MA), Representative Richard Neal, (D-MA), Secretary of Agriculture Thomas Vilsack, or Secretary of the Interior Ken Salazar. Present your argument as to what you think should be done regarding White Nose Syndrome. Thoroughly explain your position, including information from class notes, class readings and from the talk given by our local wildlife expert.</p>
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Figure 21: Final Assignment, WNS Unit.

Table 5 is the outline of my entire unit on WNS. I used this as my unit of analysis as well. The table is arranged by date, lesson agenda, the phase of the curriculum cycle employed to support instruction and the metalanguage that students used in response to the lessons. Important to note is that the lesson objectives I wrote are reflective of my three language based goals as well as the content goals. They are included in the far left column. This marks a shift in my teaching methods; using text and language objectives to guide unit instruction and daily lessons.

Table 5: Unit Outline and Metalanguage Reflection

<b>UNIT: <i>Reading and Writing like Scientists: White Nose Syndrome Investigation</i></b>			
<b>DATE/ Lesson Objective</b>	<b>Lesson Agenda(s) and field notes</b>	<b>Metalanguage students used in bold</b>	<b>Phase of curriculum cycle</b>
12/1-12/2, 12/5-/12/9 What is a scientific explanation ?  What is the matter with the bats?	Taught the 5 core texts on WNS to students. These lessons were used to deconstruct the scientific explanation.	Students named stages of scientific explanations. <b>Big idea, little idea</b>	Phase 1: Learning about the field and stages of scientific explanations

12/12-12/16  What language resources are used in scientific texts?	<p>Using their knowledge on bats, we continued to look at the core texts explaining WNS. This time, I broke the texts into clauses so students could observe across the clauses how the language worked</p> <p>Using the articles on bats and White Nose syndrome, students evaluated texts, identifying “language of science”: vocabulary and nominalization and zig zag formations that happen across scientific texts</p>	<p>Words used casually in transcripts: <b>register, science text, explanation genre, argument genre, science nouns, science verbs,</b> “<b>Science language</b> is language that impacts new ideas”</p> <p>“My <b>linguistic gut</b> is telling me that national geographic can’t figure out their <b>register..</b>”</p>	<p>Phase 1: Learning about the field and language of scientific explanations</p> <p>Phase 2: Deconstructing expert texts</p>
12/15 FWS expert VISITS  What is the matter with the bats?	<p>Ask the expert questions!</p> <p>Students suggest they need to write a letter to the government advocating for funds to protect the bats.</p>	<b>scientific explanation, government language</b>	Phase 2: Deconstructing expert texts
12/16 Letter  What is the language of being in charge?	Letter assignment designed in class. Quickly I find environmental advocacy online for students to deconstruct.	<b>Science language, advocacy letters.</b>	<p>Phase 1: Learning about advocacy letters</p> <p>Phase 2: Deconstructing expert texts</p>
12/19  What is the language of being in charge?	More work on clause analysis, this time on expert letters. register, moods/systems of authorial choice. Lexical chaining to determine author’s purpose.	Bossy language.	Phase 2: Deconstructing expert texts

12/19-12/23 What is the language of being in charge?	Students evaluated letters written to government officials by scientist, requesting funding. Expressed they wanted to learn to sound bossy, like a CEO or a boss when they wrote to government.	Bossy vs. chit chat Small but important words	Phase 2: Deconstructing expert texts
12/21, 12/22 What genre stages make up a letter?	Students create roadmaps, draft out stages of letters. They also choose which government official to write to.	Words used casually in transcripts (12/19): <b>Genre, register, bossy, purpose statement, explanation, argument</b>	Phase 3: Joint construction  Phase 4: Moving towards independent construction
1/2/2012-1/8/2012 What genre stages make up a letter?	Students work on 1 drafts of letters to a member of Congress. Lessons focus on how experts sound. Revision practices include lexical chaining, testing out bossy vs chit chat and genre analysis of texts.	<b>purpose statement, explanation, lexical chain, argument, final comment, lexical chunking, being bossy.</b>	Phase 4: Moving towards independent construction of texts
3/15/2012 (a few months later) What language and genre stages do students expect in a return letter?	Department of agriculture responds to students. They are outraged with response.	<b>Lexical chain, science language, fake language, chit chat, lexical chunking, dropping the chain, bad genre moves, no talking between paragraphs, bad so whats, bad thesis, no cohesion, no argument, letters need an explanation</b>	Phase 5: Students interacting with expert texts critically

#### Phase 4: January 18, 2012-March 15, 2012

Phase 4 serves as the case study's post bound unit of analysis instruction. During Phase 4, I also began moving my data to deductive inquiry as the end of the focused data collection concluded at the end of the WNS unit. I began organizing my corpus from the beginning of the year. Recall, I developed some initial open codes during Phases 2 and 3. In qualitative analysis, codes are descriptors that give the researcher ways to name like aspects of the data, to support the researcher in locating connections across parts of the data at various stages of collection. I allowed my early codes to remain as part of my final coding practices, even though my questions had shifted to a much more student focused study.

I began expanding on these open codes during Phase 4, allowing for data to fall across multiple codes. This was a resource to continue to support organizing the data, to have more descriptive codes to label each part of the expanding corpus. Merriam (2009) explains generating many research codes is important even in early stages of data, encouraging researchers to "assign open codes early...use shorthand designation to various aspects of data...so that you can easily retrieve specific pieces of the data later on..." (Merriam, 2009, p.173)

I began to document my experience in teaching this way separate from the corpus of artifacts. During Phase 4, I highlighted an heuristic shift in my own conception of how to teach academic language. In both my initial inquiries and emergent research questions, I intended to use SFL as a theory of language and learning as well as a tool for discourse analysis. As SFL was to inform my teaching and my analysis of student texts, I began to

document how I was learning to use this theory to shift my understanding of language as a priority in my instruction. Most importantly, I moved beyond sub-separate grammar lessons to using academic language patterns to teach reading and writing. I have commented throughout this dissertation on the ways in which I found entry points into teaching using SFL with mini lessons, which also supported in fully transitioning to a curriculum unit. I regard this as a subsequent finding and data point. I note in my teacher-research journal on 1/7/2012 that *teaching* SFL was the way I began to really *understand* SFL as a theory that provides endless description and explanation of how lexico-grammar reflects the context. During Phase 4, I began considering ways to objectively discuss my own experience in teaching SFL and created a separate set of codes to note my own learning trajectory throughout this project.

### Data Analysis: Content Analytic Methods

#### Open Coding

To explore my research questions, I collected and analyzed a diverse corpus of data.

The final data corpus included:

- Short hand notes from all district wide professional development and faculty meetings I attended throughout the year
- Classroom artifacts used in mini lessons before the unit on bats
- Full instructional unit on informational texts with language goals based on CCSS
- Meeting notes from my two meetings with Ms. Bird
- Emails between myself and the FWS officer
- Detailed artifacts collected and coded during the unit on bats



- Drafts and final letters to politicians
- Transcripts and field notes from lessons during the four week unit reflecting language based learning goals
- My teacher-journal notes taken during the unit.
- Kia's and Tally's initial open responses
- Full transcripts of the mandatory writing meeting with Tally from September; field notes from my memory when meeting with Kia.
- 5 paragraphs written by Kia, 5 paragraphs by Tally; all focused on elements of fiction from the fall unit.
- Quick analysis of 5 paragraphs written by Kia and Tally

Other data included focal participant descriptions developed from long term video data analysis, the DIP (District Improvement Plan) and notes I took on Northtown and CCSS before school began. Finally, I had two of the three formal research interviews transcribed with both Kia and Tally. All collected data totaled roughly 350 pages of data.

As I was teaching with SFL for the first time and was able to refine my teaching and research based on the artifacts that I generated and collected during Phases 1, 2 and 3 (e.g. worksheets, lesson objectives, language goals), I had notes in my teacher-research journal on my research design changes. I focused in the earliest phases of inductive analysis on my students' responses to SFL or lack thereof to inform mini lessons, and students' ability to discuss more complex linguistic concepts than I previously expected. This ongoing analytic approach to my work was also reflected in my unit design as I moved into data analysis. During this time, my basic list of early codes was as follows:

Open codes: recorded/end of Phase 2

- Instances of metalanguage used in my instruction
- Dependency on previous fixed structures (e.g. open response)
- Instances of student analysis of text features using their own functional metalanguage unprompted (e.g. “bossy” or “annoying” language)
- Instances of students using SFL/GBP theoretical metalanguage (e.g. lexical chain, Theme/Rheme)

Assembling the data corpus into open codes during Phase 4 was resourceful in learning about the entirety of my project. Many qualitative researchers use this aspect of ongoing data analysis as a methodological tool to inform not only inductive analysis but data reduction.

As I had recently completed this unit, I began a focused analysis with a review of the corpus specifically related to the instructional unit on WNS. This totaled roughly 250 pages of data, a slight reduction in size from the overall corpus.

Using tools of content analysis (Merriam, 2009), I sought to observe more focused trends across the data with the use of open codes that I had already established (Emerson et al., 1995). Content Analysis is a strategy used when coding the data and is a resource for looking at trends across the corpus that emerged during open coding. This process is important to generate more open codes. My codes tended to fall under basic trends around metalanguage and student use. Using a series of open codes from Phases 1 and 2, I then collapsed codes into closed codes as I shifted from inductive analysis to a more deductive analysis. By the end of Phase 3, data was therefore itemized and catalogued

using the following open codes based on content analysis of the finalized corpus:

1. Instances of metalanguage use in my instruction
2. Instances of prompted metalanguage use in student discussion
3. Instances of metalanguage used in classroom artifacts (generated by my students and by me)
  - 3a: Metalanguage to discussion revision of texts
  - 3b Metalanguage to analyze text features
4. Dependency on previous fixed structures (e.g. open response)
5. Instances of student analysis of text features using SFL metalanguage unprompted
6. Instances of students using SFL/GBP theoretical metalanguage (e.g. lexical chain, Theme/Rheme)
7. Instances of students using their invented functional metalanguage
8. Shifts in my understanding of SFL

I used Microsoft Excel software to organize these codes and subcodes. I then tagged all of the data I had collected with open codes and the theoretical point students were re-voicing. For example, any time students discussed the language of the field, such as “science language,” I would mark the data FIELD in addition to the code *5 instances of student analysis of text features using SFL metalanguage unprompted*. At this point in my research, I still allowed data to fall across multiple codes. Having a spread sheet of tagged data with codes and SFL variables mentioned became an important bilateral resource to help transition to the final step of coding, collapsing codes (Emerson et al., 1995). Figure 22 is an example of how I analyzed data during open coding.

<b>Data type:</b> Transcript <b>Phase:</b> 1 <b>Context:</b> Classroom instruction <b>Participants:</b> HG & Tally <b>Date:</b> 10/18/2011			
<b>Tally:</b> I think this author is joking. Or else the register choices is just super annoying. <b>HG:</b> Why do you think that?  <b>Tally:</b> The point of the text is how Hurricane Katrina ruined New Orleans and, umm...it was like pretty bad on the poor people there, but then like... this author adds in stupid jokes and baby words that are annoying. The topic isn't funny.			
<b>SFL/GBP used:</b>		<b>CODES: (BOLD all that apply)</b>	
<b>Field</b>		SFL/my instruction	<b>SFL to analyze texts</b>
<b>Tenor</b>	<b>X (audience)</b>	Prompted ML	<b>Unprompted ML</b>
<b>Mode</b>		SFL in artifacts	Inventing ML
<b>Genre</b>	<b>X (topic)</b>	SFL/GBP in revision	Shifts in my teaching

Figure 22: Sample of my Open Coding Techniques

### Collapsing Codes and Determining Categories

The final phases of data saturation came well after the unit on WNS and after the school year was over. In this phase, a case study researcher must begin to collapse open codes first, an exercise of locating common themes across the corpus and reducing them based to trends analyzed during open coding. Qualitative researchers often begin to focus on their corpus and questions to transition into this deductive process of code collapsing to inform possible emergent findings.

The first trend that emerged while collapsing these open codes into a closed system was the aspects of SFL students used in a metalanguage. In addition, I could identify slight shifts in genre control when genre was introduced as both a text type, an organizing tool and a tool for revision. Discussions of metalanguage and students shifts in

understanding genre are both covered in Chapter Six.

During this final phase, codes were written into detailed data categories. Categories are explained as “exhaustive and mutually exclusive....with the same level of abstraction characterizing all categories at the same level.” (Merriam, 2009 p. 186). The categories were finalized in response to research questions and the purpose of my research, as well as what I was learning about this work during data reduction. Each item of data was linked to one of these categories.

Final Categories used in data analysis were as follows:

1. Student generated metalanguage used to explain academic literacy
  - 1.1.Shifts in student conceptions of genre
  - 1.2.Instances of students explaining language as a system
  - 1.3.Language as a resource for explaining text/context relationship in content area disciplines
2. Changes in student textual practices (e.g data learned from analysis).
3. Changes in my understandings of SFL

These categories informed my findings which will be discussed in Chapter Six and Chapter Seven.

Appendix 6 serves as the case study’s final database record (Patton, 2002, p. 449). This practice is a way to organize the final data that was collected in response to the final research questions when writing up a case study. Patton (2002) describes this database as a practice used in the final stages of data reduction in case study research in that it “pulls together and organizes the voluminous case data into a comprehensive, primary resource

package...includes all the major information that will be used in doing the final analysis” (Patton, 2002, p. 449).

### Critical Discourse Analysis of Student Texts

While the four phases of my research used ethnographic tools, the bound case study unit and the teacher research journal to assist me in understanding the macrocontextual relationship to the teaching and learning process with an SFL language pedagogy, I was also committed to a microtextual analysis of student texts as a responsive product to discuss language learning. I also felt this tool was important to use in order to claim more researcher objectivity in teacher research. Using a theory of language to analyze and discuss student texts theoretically rather than a rubric generated by me to analyze student texts, which may only reflect my language goals. SFL as a tool for text analysis analysis was used to discuss texts and provide a wider lens to look at the research.

To begin a microtextual analysis of student work, I used the tools of CDA. I copied Tally’s and Kia’s written open response samples from September 2011 into a google document, maintaining all student language: capital letters, mis-spellings and scratched out words. I repeated this process with a series of paragraphs they wrote during our elements of fiction/short story unit (five in total), all written between September 2011 and December 2012, into our shared google drive, if the text had not been shared with me via google already. Then, I cut and paste their final bat letters from their google accounts into my research corpus. After I had all of their fully typed up their texts, I began the analysis. I decided to complete a full register and genre analysis on the open response and

the bat letters, and then do a quick analysis on the five paragraphs they each submitted in the short story unit. This decision was made based on the bookends of the phases of my research and case study; September, 2011 to March, 2012.

To do a full analysis, I began by breaking the open response and the bat letters into clauses. I defined a clause break for myself as a unit of grammar which is a rank below sentence, one that contains a subject<sup>16</sup>+finite combination (Halliday, 2004; Eggins, 1999). As addressed in the theoretical framework (see Chapter Two) SFL educational researchers often begin a text analysis of students' written work samples by breaking texts clauses to look at how patterns in the writing unfold across the clauses. Clause breaks are resourceful to compare across multiple texts that students write over time as well as to return to a study's research questions and refine and tailor an analysis using the clause breaks to satisfy larger questions in the data.

In Chapter Two, I also discussed the centrality of the process (verb) in clause breaks and that functional linguists prioritize the process as the central function of the clause. This is functional, as much of academic language learning begins with a focus on the processes. Learning to control the process can serve as a significant shift for students learning to control academic registers (Williams, 2005; Macken-Horarik, 2008). Halliday explains that the process can hold content, tense, negation and serves as the meaning making grammatical unit in a clause for readers (Schleppegrell, 2004). Therefore, when breaking their texts into functional clauses, I specifically prioritized the process as the stable constant across each of the students' clause breaks.

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<sup>16</sup> Subjects in functional grammar can be assumed, shared or elipsed, however every clause must have a finite verb (Halliday, 2004).

After I had fully typed up the two focal analytic tools texts with clause breaks, I copied four versions of each set of clause breaks into four different word processing documents. By doing this, I could look separately at elements of field, tenor, mode in my analysis, as well as stages useful in a genre analysis.

### Field Analysis

To begin an analysis of the field, I did a full transitive analysis on each text. This involved labeling and identifying each word or functional word phrase (e.g. nominal group) in each clause into the field variables: participant/process/circumstance. I then focused on processes (verbs). As I had based my clause breaks on the location of the process in the clause, this was an important way to organize a transitive analysis, maintaining the importance of the process. I labeled the process types into more delicate categories. Recall, Halliday describes processes functionally by what they are doing: relational, material, mental, verbal, behavioral. This is important when looking at trends in controlling academic language, especially when looking closely at the language of the disciplines. Each discipline uses processes and process distribution a bit differently based on the text's purpose. In addition, I had spent instructional time teaching students to look at how scientists used processes differently than other content areas. In my lessons, I had encouraged students to look at process use based on disciplinary purpose as a way to move students beyond more basic verb choices in text. In my teaching experience, struggling writers generally gravitate towards relational processes (e.g. *is*, *was*, *had*, *have*) rather than more content carrying processes. In order to draw conclusions on how



Kia and Tally used processes, I looked closely at their control of the process delicacy on both their open response drafts and on their bat letters.

Figure 23 is a portion of the field analysis of Tally’s opening text and serves as a data display of how I marked clause breaks in order to see trends across her participant/process/circumstance groups. I also focused on delicacy, as seen in the column “Process.”

Tally almost exclusively uses relational verbs in her open response text. A full field analysis of both Kia’s and Tally’s open response writing can be found in Appendix B.

Clause #	Participant	Process	Participant	Circumstance
1	“Just Listen”	is (relational)	a GREAT book	for Middle schoolers to read
2	it	has to do (relational)		with some issues
3	Middle Schoolers	may deal [with] (material)	as a younger sibling	
4	it	is/not (relational)	a very good book	for middle schoolers
5	some of the issues	are (relational)		too mature

Figure 23: Sample of Field Analysis

#### Tenor Analysis

Upon completing my field analysis, I used the same clause breaks to begin looking at tenor. Rather than labeling each word as I did in the transitive analysis, I wrote descriptions of each clause. Using the clause breaks, I analyzed how language choices reflected language choices and whether Kia and Tally understood their respective audiences. This required a description of how mood, polarity, appraisal and modality were used in each clause. To make claims about this relationship, I looked at language choices and sentence structure.

To determine the relationship between language choice and audience, I began analyzing each clause for polarity, modality and appraisal, three register functions of the interpersonal metafunction. First, I analyzed for polarity. Recall polarity is whether or not negation is present. In academic language, writers tend to use less negation than in informal or spoken registers but instead, academic writers depend on clause-complexes to demonstrate both the positive and negative possibilities of a subject (Christie & Derewianka, 2008). Then, I described the modality, as it supports restructuring of polarity. Modality is the dependency on modal verbs, such as *would*, *could*, *should*, *may* and *might*. These verbs provide a distancing impact between the subject and the finite as they invite potential and room for debate, rather than absolutes that may yield from strict polarity. For example, Tally does not claim that all middle school students deal with issues of siblings (see clause 3 in both Figure 23 and Figure 24), but instead she says (3) / *Middle schoolers **may** deal with.* / In this instance, she uses a modal verb to invite potential without being resolute or adding negation. This is an important feature of academic language. Academic writing privies a more neutral position and the author's expertise comes across in neutrality of language.

Using the completed analysis of polarity and modality, I considered systems of appraisal. As with a genre analysis, this is more of a cultural judgement rather than an exacted grammar. Controlling appraisal systems is also an important aspect of learning academic language as academic texts depend on objectivity. When I felt that Tally and Kia were either over praising something or under estimating it, hinging their ideas on the poles of lexico-grammar rather than maintaining centrality or facts, I would note the

appraisal as too high or too low for me as an audience with academic expectations. In terms of grammar, often times this is found in excessive adverbs and in exclamatory mood systems. Both Kia and Tally had high appraisal in their fall open response writing. I concluded the analysis by adding on a column to my data display to discuss mood. Mood is determined in a clause's syntactic structure and is considered another choice authors have. Declaratives, interrogatives or exclamatory syntax organize the flow of information, but they also reflect a text's purpose. In academic writing, a declarative syntax is almost always maintained. When using declarative structure, the writer can inform the reader in an expository and objective manner to construct facts.

Figure 24 is a sample from the tenor analysis of Tally's open response text. Her text was analyzed for polarity, modality, appraisal and mood. I added commentary on mood into my analysis after I had completed the the systems of polarity, appraisal and modality because my students began to respond to how mood systems impacted their opinion of text's credibility. I was curious to see if this judgement on syntax carried over into their writing.

	Subject+Finite in bold and residue	Polarity, Appraisal, Modality	Mood Structure
1	<b>"Just Listen"</b> is a GREAT book for Middle schoolers to read/	Appraisal: GREAT (caps)	declarative
2	because <b>it has to do</b> with some issues /	Modality: has to do	declarative
3	<b>Middle schoolers may deal</b> with as a younger sibling.//	Modality: May deal	declarative
4	<b>It is also NOT</b> a very good book for Middle Schoolers /	Polarity: NOT Appraisal: NOT, very	declarative
5	because <b>some of the issues are</b> too mature. //	Appraisal: too mature	declarative

Figure 24: Sample of Tenor Analysis

## Mode Analysis

After completing a field and tenor analysis, I began looking at ways to consider the various dimensions of textual coherence. To analyze for cohesion, I first drew lexical chains on students' texts, tracking their arguments to make claims and discuss patterns of maintenance and issues of cohesion. I followed the lexical chains with a Theme and Rheme analysis using the clause breaks. Figure 25 is a sample from Tally's open response that highlights her dropped Themes. I have bolded issues of new Themes in the THEME column in Figure 25, which I suggest is an issue of controlling cohesion while writing.

THEME	RHEME
One example	of it being to mature is because
Anabel <i>[NOTES: Thematic issue; unknown Theme]</i>	is hiding a secret
and it	s
that she	was raped
You	dont' find out until the end of the book
because she	keeps it a secret
Another example	is that
Whitney <i>[NOTES: Thematic issue; unknown Theme]</i>	deals with being an anorexic

Figure 25: Sample of Mode Analysis

## Genre Analysis

When I conferenced with my students in the Fall of 2011 on their baseline open response questions, I was interested in how fixed their interpretation of genre was. In Chapter One, I included aspects of transcripts of a meeting during the first few weeks of school with Tally where she stated how she understood school writing to follow one formula. Recall, she goes so far as to list the rules of text construction: topic sentence,

three reasons and clincher. Therefore, GBP became an important aspect of my dissertation data research early on, as I was motivated to try to disrupt this formulaic understanding of open response questions and include my process in learning how to teach genre as staged and responsive to context in my teacher-researcher reflection. I also wanted to move students to metalanguage used to name genres reflecting what they were doing (argument) and labeling genre stages as stable or optional based on the purpose of the text. Eventually, as noted in my teacher-research journal and discussed in Chapter Six, GBP was also a way to engage students in purposeful writing outside of school that still responded to important boundaries and affordances of the context.

In terms of genre analysis, I began by breaking the open response texts into what I thought were the genre stages and labeling them. However, when I was labeling Tally's text stages of her open response, I realized how subjective this aspect of genre actually is. It became clear that a genre analysis is much less clear to a researcher than the field, tenor and mode analysis. As I did not show this analysis to Tally nor Kia until I had recorded or analyzed it months later, I realized that teachers should consider discussing genre stages with the student author. Therefore, Figure 25 serves as my interpretive understanding of Tally's text based on how genre theorists describe texts as staged (Martin, 1993). I decided to add in stages I felt were omitted to the functionality of the text. To support this subjectivity in genre analysis, I added commentary on the right hand column as part of my own learning process on how to teach genre

Text	Potential name/stage	Commentary
“Just Listen” is a GREAT book for Middle schoolers to read/ because it has to do with some issues /Middle schoolers may <b>deal with as a younger sibling.</b> //	Statement of position	Strong starting position, relatively close to prompt. Out of place: focused example in introduction. <i>‘it has to do with some issues /Middle schoolers may deal with as a younger sibling./</i>
It is also NOT a very good book for Middle Schoolers /because some of the issues are too mature. //	Counter argument—second assertion	This is genre confusion. Unclear which side Tally has chosen. <i>‘NOT a very good book for Middle Schoolers ‘</i>
One example of it being to mature is because Anabel is hiding a secret and its that she was raped..	Example #1/Backing second assertion	This example supports Tally’s second assertion
You don’t find out until the end of the book because she keeps it a secret	Text evidence used as support for second assertion	Text evidence was part of the prompt, positive that she included it.
Another example is that Whitney deals with being an anorexic	Example #2/Backing second assertion	I think this is also supporting her second assertion, that the book is too mature.
and goes to therapy.	Text evidence used as support	Text evidence was part of the prompt, positive that she included it.
A reason it’s good is that because of the unfortunate events it makes you watch the people you hang out with.	Example #3/Backing first assertion	
<b>XX</b>	<b>no text evidence stage</b>	<b>Omitted stage.</b>
Also that it teaches what a true friend does.	Example #3/Backing first assertion	
<b>XX</b>	<b>no text evidence</b>	<b>Omitted stage.</b>
A last one is that it makes you more concious of your choices.	Example #4/Backing first assertion	
These are my reasons for saying “maybe” but maybe its a more better choice for 8th graders or freshman.	Closing statement	No a final comment, no extension of text beyond basic summary.

Figure 25: Sample of Genre Analysis

### Language Trends in Student Texts

Once I had completed a full register analysis of the bat letters, I revisited my research questions, my unit language goals and teacher-researcher journal which outlined instruction on these language goals. I also reviewed CCSS's benchmarks for students on informational texts and academic language (see Appendix 2c). With this review, I developed a list of analytic variables to look at critically on both waves of Kia's and Tally's texts. This was also a methodical data reduction strategy to reduce the number of pages of analyses to a manageable, evaluative data set.

Using my research questions, language learning objectives and CCSS, I created my final list of discussion points of student texts:

- Genre stages (stable and optional features stages to school genres: specifically the genre of the argument)
- Logical "order" of genre stages
- Topic maintenance (using construct of lexical chains, as part of the textual register feature)
- cohesive devices
- Knowledge of audience (supporting students in "bossy" language and not "chit chat" registers choices)
- Knowledge of field, or "domain specific" vocabulary (CCSS); knowledge of nominalization and other aspects of grammatical metaphor
- Process (verb) diversity

I also chose these features to analyze and link the macro and micro context of my study (Cazden, 1982; Dyson, 1993). Using my instructional goals, my analyses and CCSS allowed me to more fully analyze the relationship between language and instruction. The features on this list reflect the the core features of academic language I taught and the ones that students either adopted or re-voiced in their SFL metalanguage, but also the major shifts towards a CCSS informed curriculum. I wanted to discuss my experience as a teacher-researcher on how to design a unit with language based learning objectives that were anchored in the CCSS benchmarks, but one that was also critically and interesting to students. Finally, I also selected these features to analyze because they were task independent. No matter the writing assignment, these aspects of genre and register were prevalent in much of the literature I reviewed defining and advising instructional goals on academic language at the middle grade level (Christine & Derewianka, 2008).

To consolidate all of these objectives into a useful data display, I developed a final analytic chart to compare my notes on these features. This assisted in CDA methodology by reducing data into final and exhaustive categories, much like I did with metalanguage. Both Kia's and Tally's final analytic charts can be found in Appendix B. During this process, I realized I also wanted to look at certain register features more closely, to determine if metalinguistic instruction and student metalanguage was effective on writing. I felt it was important for my own learning about teaching with metalanguage to highlight the potential of actively discussing and naming the register and genre features of academic writing and then analyzing if those features were evident in their writing. In Chapter Six and Chapter Seven, I discuss the findings from analyzing texts links between



analysis of metalanguage and student texts.

### Addressing Limitations in the Methods

There are several potential limitations to this kind of study. In particular, there are issues that surface with teacher-research, mainly with objectivity and reliability.

I tried to address objectivity by reading the findings of my dissertation to Tally and Kia in June 2012, five months after we studied WNS. Much of the findings sections of this dissertation reflect their feedback. When reviewing this work, Tally described her initial open response writing as “boring,” reassuring me that “nobody tries on those [open responses]” (Tally, interview, 6/2012). This reflection was how she explained why her baseline open response on her summer reading book did not have a clear argument and instead had a series of incongruent arguments. Unprompted, she also noted that her paragraph did not respond to the baseline open response question about summer reading. During this meeting, Kia and Tally both helped me tease out the language features I taught and which metalanguage features their classmates repurposed for our classroom on their own. Interestingly, it was extremely important to them that I get this aspect of my research right.

In a series of advisory meetings, I worked closely with my dissertation chair/graduate advisor for feedback on the integrity of my findings. At each phase, I was able to flush out findings with her guidance and with her own SFL metalanguage scholarship. With her, I also was able to learn more about my blind spots. When using teacher-research, it is imperative that the teacher-researcher has a third party to work with on blind spots. A particular blind spot I had was on the motive of collecting this data. I was

very driven to collect this data for the purpose of my dissertation research, and it was important to record the reality of lesson planning and which lessons were sophisticated and required facility with SFL. She also encouraged me to present this work as often as possible. I have had the opportunity to present this work to various audiences: graduate students studying SFL; in service teachers; sociolinguists and teacher educators at national conferences on teaching English and linguistics; and to a group of researchers and teachers studying academic language at a focused two day conference on developing academic language pedagogical strategies. All of these audiences have provided me with new insight on my research.

Reading a significant amount of literature on using SFL to inform academic language instruction was a helpful resource for my project design. Multiple scholars who invested in this work insist that part of designing a language pedagogy informed by SFL must reflect the context, needs of students and the use of language based learning objectives. In a statement on using a functional metalanguage to support students in describing academic language, Schleppegrell et al. (2014) echo other scholars, stating:

...a metalanguage need[s] to be adapted by considering the kind of writing that teachers in a particular context want to support, and then developing that support . . . through a process of identifying purposes, stages, and language features, embedding the writing in a pedagogical context that is relevant to the local classroom ecology” (Schleppegrell et al., 2014).

The repeated reference to the context in the research pushed me to study Northtown from multiple angles with multiple sources.

In reviewing my teacher-research journal, I should note that I often reflected on the process of allowing students to re-voice my lessons into their language. At first, it

certainly created a situation of shared power in the classroom. However, by allowing it, I believe it invited more validity in the findings. As I watched the videotapes of the lessons focused on bats and WNS, I note in my own teaching that slowly, I allow more agency for student voice and creative language development. With this, my study changed direction. My participants became much more focal as they were empowered to invent a language and as a result, my actual teaching became subsequent. While student voice is certainly not a limitation, student re-voicing the language and the FWS officer encouraging them to write letters to the government were certainly not in my original project design; had they been, I may have focused on teaching more features of informational texts to support their interests.

I also cannot account for normal cognitive and language development that happens over a period of several months of schooling. Tally and Kia both reported to “loving” seventh grade, that it was their favorite year of school and that they were convinced that they had the “coolest teachers at school” (joint formal interview, 6/2012). All of their teachers reported that both girls were excited and invested in other courses and with the same enthusiasm I saw in English class. I do not have tools to measure efficacy and response to teacher/student relationships.

Case study researchers must address the issue of generalizability. Case studies do not afford the authenticity of a classroom ethnography, which relies on the narratives of students and the story of the classroom over time to examine long term trends. Case studies, with the bound unit of analysis, truncate the potential narrative which is useful to explore long term trends. The majority of this work is focused on such a short period of

time (four weeks). Staking major claims on how academic language forms in a classroom and how students learn the dialect as a result would be inauthentic. Work such as this is better positioned along other case studies using SFL in classrooms language pedagogies to make any generalizations about academic language development. Many quantitative and narrative methodologies would also be necessary to make claims about how students make long-term gains in academic language learning.

Case study researchers, like much of qualitative inquiry, discuss the ways in which they used triangulation practices to address issues of validity, reliability and integrity of findings. Table 5 records the ways in which I accounted for validity, reliability and integrity throughout my research design as well as in my findings.

Table 6: Validity, Reliability and Integrity of Findings (adapted from Merriam, 2009).

Objectivity method	What Was Collected	When Collected	Why Collected
Reliability/audit trail	Teacher-research journal	Often, almost daily reflection on my teaching.	To flesh out biases, and to reflect on mistakes and failed lessons.
Reliability/triangulation	Student texts of focal participant writing over the course of the school year	Throughout the year	I used these to do a full register analysis to try to seek patterns in student texts that may have matched other trends in the data. Used SFL for analysis. Used to observe trends objectively with theory of language rather than researcher generated rubric.
Validity/member checking	Recorded interview with Kia and Tally/member checking	June, 2012	I read the findings section of my dissertation to my participants, so they could correct/contribute to my findings. Chapter Six & Chapter Seven primarily.
Validity/peer review	Peer review-extensive notes taken at national conference presentations on my data	Presented at three national conferences and to graduate students multiple times (November 2011, April, 2012, November, 2013)	Having voices of other SFL scholars in the field helped me isolate potential biases, loop holes and assumptions
Integrity/thick description of context and participants	Video data	All seven months	This was the only way for me to conclude on a thick(er) description of my environment, one that my readers can find some universal properties in to connect to my research and research agenda, and potentially find my variant participants useful to inform other classroom work.

### Conclusion

This chapter has outlined the methods I used to inform this work and the development of my final research questions, the data collected and the analysis implemented to better understand this data. Both methods and questions serve as responses to the environment of my classroom and the context of my school's transition to CCSS. This chapter also draws on the phases of research and ways I allowed phases to

organize my research before and after my instructional unit was taught. The chapter concludes with limitations and objectivities of my findings. Findings are explored in Chapter Six and Chapter Seven.

## CHAPTER 6

### PROCESS OF LEARNING ABOUT ACADEMIC LANGUAGE IN AN ELA CLASSROOM

#### Introduction: Classroom Metalanguage as a Process of Learning

In this chapter, I present findings related to the process by which Kia, Tally and the students of Period 5 discussed and learned to produce academic texts within the context of this study. The most significant trend in the data during the latter phases of content analysis was how students evolved a classroom metalanguage during the process of academic language learning. Content analysis of the final data corpus suggests that during this process, students in my class responded to various parts of the instruction by renaming parts of the language theory with a dimensional and functional student generated classroom metalanguage. This invented student metalanguage indicates that my students were able to appropriate the theoretical aspects of SFL into a functional tool, useful for them in describing the language choices they had in academic literacy.

A classroom metalanguage is broadly defined as a set of agreed upon terms used to describe or analyze another part of language (Macken-Horarik, 2011). Classrooms are complex spaces in which teachers and students have limited amounts of time to accomplish and discuss many things. A classroom metalanguage serves as an efficient way to name, locate, share and explain various classroom literacies with language. Discussing elements of literacy with metalanguage was not unusual for my students before this research began. Consider the way they discussed their open response questions at the start of the year, naming the parts of their open response paragraphs as

“opener” “reasons” and “clincher.” Therefore, in my language pedagogy I needed to transition students to discuss the ways academic language functioned in texts beyond the fixed labels they already knew, labels that often frame text construction structurally rather than functionally. It was not difficult for my students to break from these structural labels; the functional metalanguage in my classroom became a shared way for us to discuss the elements of language and genre I felt were important to support their academic language and scientific literacy development, as outlined in Chapter Four. This metalanguage supported students in responding to the new language benchmarks set forth by CCSS and the agreed upon content area language and literacy goals determined in my second meeting with Ms. Bird. In some cases, students used the exact language of SFL to discuss text features such as *lexical chain* and *register*. However in most instances, they re-voiced these terms, creating their own metalanguage. They conflated multiple SFL/GBP theoretical constructs into one term to describe language systems in texts that were relevant to scientific literacy and the audience expectations in their advocacy letters. Students also began to use metalanguage to critique and analyze expert texts based on their evolving language expectations.

Students made sense of an SFL metalanguage in a variety of ways: direct instruction; text deconstruction; discussing planning and drafting phases of writing; revision; testing out the register based on audience; and using SFL terms as an analytical tool to critique expert texts. Although many theoretical aspects of SFL were introduced, students focused on the elements of each register variable to support their understanding about bats and writing advocacy letters. For example, instead saying field language, students described “science language;” instead of tenor, students discussed “writing



bossy;” and instead of cohesion, students discussed “lexical chains.” They also discussed genre as staged and organized purposefully to best impact message delivery supporting their letter writing.

Table 7 outlines the manner in which the student metalanguage unfolded. Most of the student metalanguage featured in Table 7 was initiated during the unit on WNS, although metalanguage changed and took on new meanings in my classroom after the unit was over. The table is organized around the language instructional goals, student generated metalanguage and the way students explained SFL. In preparing the table, I organized my instructional goals based on terminology from SFL and GBP metalinguistic theoretical features, in the far left column (e.g. “genre”). After reviewing the corpus of student experience (described in Chapter Five as a collection of transcripts of classroom lessons, interviews with focal students, classroom artifacts, student work, register analysis of Kia’s and Tally’s texts, and three formal interviews with Kia and Tally), I created the two middle columns labeled “student re-voiced language” and “student explanation” to highlight how the theory manifested into classroom practice. I used student voice to explain the their metalanguage, with quotes around student voice in the column labeled “student explanation.” I created this table in the final stages of data collection, when collapsing my open codes into final categories<sup>17</sup> (Emerson et al., 1995). Using data analytic tools of content analysis with the final case study report (see Appendix 6), I sought short and long term trends in student metalanguage usage over the study to inform categorical data reduction (Merriam, 2009; Bogdan & Biklen, 2003). I include in the table’s final column details on these trends, especially how students used

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<sup>17</sup> For more on this process, see Chapter Five.

metalinguage during the unit on WNS and when relevant, over the seven months of data collection.

Table 7: The Development of a Metalinguage in Period 5

SFL/ GBP Meta- language	Instructional focus	Student re-voiced language	Student explanation	Use over time in producing, interpreting and analyzing texts
Genre	How people write at work; “guessing” what genres a lawyer, a doctor, a teacher, a businessperson, a police officer use for their job. Posing questions to students like: <i>What genres would these professionals need to use in their daily work life?</i>	“Genre”  “stages”  “ordering”	“How to get organized to make a point”	Used usually to name aspects of genre moves within a larger text--such as “this is an explanation” or “this is an argument”- very linked with purpose of text.  Used often when discussing expert texts, labeling stages of genre.  Linked to “purpose” of text and “recipient audience”
	Road map--trying to replace templates A generic outline--helpful for getting organized It is OK to change once started. Encouraged.	“Road-mapping”	A flexible included plan, named with genre moves. Students often constructed this on their own in place of a template.	“Roadmapping”=synonymous with planning. Often done as a HW assignment. Students preferred to draw them out rather than to use a worksheet.  Used for pre-writing phase.

SFL/ GBP Meta- language	Instructional focus	Student re-voiced language	Student explanation	Use over time in producing, interpreting and analyzing texts
	Expert texts: observing the ways in which authors put information in order- specifically an article on technology and schooling	“Ordering”	How one organizes a road map based on known information an desired impact	Useful before and during text construction  Acknowledging that the order of paragraphs often impacted the audience’s perception. Particularities in the order, for example (later in school year, in context of why we can’t just dive in w/ an argument)
<b>Tenor (and field and mode)</b>	Authoritative language/audience; elimination of personal pronouns, observation of content packing, pronouns, and verbal choice	“Being Bossy”	Bossy deals with imitation of authority figures, wanting to sound like an <i>expert</i> and an <i>activist</i>  Language that a CEO would use, someone who was the boss. Identity; someone in charge of knowledge. Someone believable. Someone with "cred."	Used to discuss authoritative register. This included using modal verbs to create possibility when necessary, and then omitting modal verbs when authority was needed. Bossy also relied on declarative syntax only.  Over time, bossy began to include <b>field</b> components as well, like using words that scientists use--e.g. <i>Hibernaculum</i> and <i>fungus</i> and <i>index (v)</i> . Being bossy was someone who knew the language of the field to prove credibility to an audience. Also, being bossy references someone who could maintain a <b>lexical chain</b> . If the lexical chain were to be omitted, the reader was “toyed” with. Also, using genre moves effectively, to organize a message with “ordering” in ways that created an impact. “Without a solution, you could just sound like you’re whining.”  Bossy evolved over time to include: •Science language •Small but important words, pronouns or adverbs used to represent scientific language from the previous sentence. •Lexical maintenance •Content packing •Generic ordering, important for impact
	Oral register/ elimination of personal pronouns	“Chit Chat” “wimpy verbs”	The opposite of bossy-oral register.	Most useful for students during revision stages-testing out “how boss” or “how chit chat”

SFL/ GBP Meta- language	Instructional focus	Student re-voiced language	Student explanation	Use over time in producing, interpreting and analyzing texts
Mode	Lexical chain- demonstration to students as to how texts stick together through nouns, pronouns, conjunctions and adverbs	“Lexical chaining”	Data: “We use lexical chains because you need to have a fluent and consistent subject, but you also need to be able to add details.” (Kia)	Used most frequently in revision activities.
		“small but important words”		
		“cohesive devices”		
		“lexical chunking”		
		“Small but important words”	Same as the name, small words that do big jobs.	Students identified the subsequent Theme slot as sometimes useful for a small but important word: mostly this, that, as such, due to, as a result, it, there.
		“Cohesive devices”	“sticky words”	Rather than using the label “pronoun” or “conjunction” students spoke of cohesive devices. This began with lexical chaining, but evolved to be a systemic way that texts stuck together.
		“Lexical chunking”	“paragraph s that talk to each other”	Students would check to see if lexical chains extended across paragraphs, representing major themes and claims.  Some evidence that cohesive devices work in tandem with genre

Using Table 7 as an organizational guide for this chapter, I present my findings on the process of metalinguistic development. My analysis of student metalanguage will be discussed in terms of genre, the language needed for audience expectations, the connection between mode and genre and as a textual analysis tool. Wherever possible, I include data from transcripts or other classroom artifacts to authenticate student

metalinguage. Despite organizing my findings on Table 7 categorically with the variables field, tenor and mode, a significant finding on student generated metalinguage is the more the metalinguage evolved, the more intertwined across the variables it became. I discuss this theoretical integration and evolution in each of the corresponding findings sections.

### Findings

Finding #1: With instructional support, students discussed aspects of genre with a more functional metalinguage than at the beginning of the year.

I planned much of my informational text unit using the CCSS informational language benchmarks for grade seven (see Appendix 2c) and CCSS description of *writing an explanation* (see Appendix 2a), particularly after I met with Ms. Bird and she encouraged this aspect of shared instruction. The inclusion of these CCSS goals in my lesson planning was necessary to gain the school administration's approval for this instructional unit plan. Using Martin's conception of genre as staged (1992) and Hyland's notion of genre moves as *moving* information from one stage in the text to another (Hyland, 2004), I noted in my teacher-research journal that I intended to inform genre instruction by teaching the scientific explanation as a "staged-goal oriented social process" (Martin, 1992, p. 505). This level of attention to the theory informing a writing pedagogy is in significant contrast with the standardized high stakes writing instruction so central in Northtown's existing writing curriculum.

While I approached this instruction with what I felt was a strong theoretical understanding of genre, I recorded in my teacher-research journal throughout this study that teaching genre was extremely difficult when compared to register, which surprised me given how much more complex Halliday's register theory appears. The concept of a genre as *staged*, with *moves* that shift throughout the text, and as tied to the text's purpose

and the audience's expectations was incredibly difficult for me to learn to teach. Aside from instruction on advocacy letters, which I found to have functional and obvious genre stages to achieve the purpose of the text, other school genres were more difficult for me to instruct as responsive and flexible. It was difficult for students to conceptualize that the purpose of the text was tied to internal organization. However, when I began to include stages as responsive to the needs of the audience as salient in a text's organization, it became easier for students to link the genre stages to the text's organization and purpose (teacher-researcher journal, 12/18/2011).

In my initial unit instruction, I felt I needed to introduce and define informational texts for students. Informational texts were recently introduced into the curriculum as a result of CCSS, mentioned all over Northtown curriculum meetings, but relatively undefined for students beyond a non-fiction text. I decided to strengthen my students' understanding of informational text construction by deconstructing the series of expert informational texts from the FWS field officer (Derewianka, 1990). My instructional goal was to introduce informational texts as purposefully designed to provide information. I highlighted for students that within the broad category of informational texts, there were various genres that supported different types of information. I taught that in a successful informational text, the author "moves" the reader along by adding information on to an unknown concept, ultimately teaching the reader new information. I then focused on the scientific explanation as an example of an informational text. I named the text stages with students, discussing with them when the text moved on to another functional and purposeful part.

We began to study expert texts that were scientific explanations connected to our unit, each text organized around an explanation of various aspects of bats: hibernation practices, gestation, migration and WNS. Deconstructing these texts during instruction reflects the first phase of the curriculum cycle (Painter, 1986; Rose & Martin, 2012), where instruction focuses students on learning about particular text types to support understanding of how a text type is organized to achieve a purpose. This practice concurrently builds the field information for students as well as genre knowledge. I used the language of GBP (Martin & Rose, 2008; Martin, 1992) for my students of “stable stages” and “optional stages,” used to name parts of the scientific explanations that were routinely included in the texts on bats, and optional stages that were used in some bat texts but not in others. This fluctuation was noted by students as responsive to text content. For example, in the texts describing “sad” material (WNS, death rates and failed gestations period due to WNS), students noted there were optional stages explaining how dire the problem was. However in pure scientific explanations (e.g. texts focused on hibernation or gestation periods), the texts did not require a “sad” stage as the purpose of the texts was to explain something scientifically and not include the result.


Having this small amount of metalanguage: purpose, audience, stages, moves, informational text and scientific explanation, allowed me to write more lessons where we could discuss texts functionally. Students seemed to enjoy naming genres and their respective stages. They also learned to discuss the job of the text; texts *explained*, or texts *argued*. With this rudimentary understanding of genre, students began to discuss texts as containing different stages and while they did require my support when naming the stages, with support, they could label the areas of texts where a shift in the text occurred.

For example, with me, students named the following stages as stable and optional in scientific explanations during instruction:

- Stable: introduction to the big topic
- Stable: general information on big topic
- Stable: specific information on big topic
- Optional: sad information about the topic if the topic is “dangerous or sad”

Figure 27 is a copy of Kia’s notes from these lessons on stable and optional stages of scientific explanations on bats. Note her use of arrows. Students in Period 5 liked drawing connections between the genre stages that were related to one another. Also of note, Kia rarely did her homework, so she was unable to analyze article 4, which is left blank on the data display in Figure 27. Article 4 was the only scientific explanation/genre analysis that was assigned for homework. The rest of the articles were deconstructed and analyzed in class. I note in my journal that many students did not submit their homework on article 4, possibly suggesting they were unable to analyze article 4 on their own and that this activity still required the role of the expert. A few lessons on text deconstruction were not to be viewed as transitory to the next phase of the curriculum cycle. This rush through the first phase of the cycle is consistent with the findings I read in the literature, where many teachers using the curriculum cycle (including myself) rush the first phase (Rose & Martin, 2012).






## Becoming experts....on BATS!

Genre **stages**: What is happening in informational texts on BATS?

We will spend a few days becoming experts on these texts, so that we are ready for our bat "visitor"! Let's figure out what STAGES and FEATURES "explanations" have in common!



STAGES	Article #1: <i>Hibernating Bats</i> Author: FWS (Classwork)	Article #2: <i>The secret life of bats</i> Author: Phil Richardson (Classwork)	Article #3: <i>White Nosed Syndrome mystery; Something is killing our bats</i> (Classwork)	Article #4: <i>White Nose Syndrome Sheet</i> Author: FWS (Homework)	Article #5: <i>Twilight for Bats</i> Author: National Geographic (Classwork)
	fact Big topic	fact Big topic	Problem Big Topic		NOT A SCIENCE TEXT
	General	History of problem	research		Register is mixed up, and it's more of a story
	more focused facts on big topic	Specific	prevention		He enters the second dark room
Features	Latin language pictures	Specific pictures subtitles	effect		
	Science words	Latin language	Science words subtitles pictures		

Let's draw CONCLUSIONS on stages in informational texts

It gets more focused by the first to the end.

Science language uses words different by turning a narrative as hard to understand adj.

Figure 27: Kia's Notes on Stages of Scientific Explanations

My students, especially secondary focal student Josh, did not like the informational text I took from National Geographic, labeled on Figure 27 as Article #5. They felt it was too “story-like” and not a scientific explanation. This created counter metalanguage, where students began discussing texts that broke their expectations, namely what was lacking in the ineffective texts. At another point in this chapter, I include a transcript where Josh continues to discuss Article #5 with disregard, weeks after I assigned it. On Figure 27, Kia states she is unhappy with Article #5, as it breaks her new-found genre expectations. She writes on the far right column *Register is mixed up*. I have placed a box around this analysis.

While students struggled to name stages on expert texts, they were able to name the genre stages on their written work. For example, when writing advocacy letters to the government students noted that to write letters on behalf of the bat population, they would need to provide a scientific explanation to their audience (the government) as to what WNS was before they argued for activism on behalf of the bats. Transcripts from these lessons also include students discussing the stages they will include: “describe why they are writing” and “explanation of WNS with big reasons and little reasons” and “argument” as the stages they may want to use when setting up letters to write to congressional leaders. I instructed them to conclude with a final comment (a functional GBP term), as a stage to support their conclusion beyond a restatement. However, they preferred to call it “the so WHAT!” conceptualizing what they had already written and then pushing the reader to think about the final topic in a way that was “special” by answering a critical question about the topic.

One way to support student writing and naming stages on their texts was I asked them to consider what stages their letters would need before they wrote them. Over the course of the year, I had taught students to make road maps during their planning phases to help prepare them for their writing. A road map is a common metalinguistic term used in writing pedagogies as a metaphor for determining the possible “driving” directions of the student’s text. In our maps, we included options for a few routes, or in our case, different genre stages. As a class, we often discussed “road mapping,” replacing the scripted, open response pre-writing templates that students used in other classes. In terms of the curriculum cycle, this activity could also be considered a reflection of the joint construction phase. In this phase, teachers transition students to plan their writing based on what they learned about the text type in the deconstruction phase. As students tested out genre stages for their letters, they were thinking broadly about what stages their letters needed to both achieve the purpose and impact the audience.

Figure 28 is an example of a roadmap. Molly maps out possible stages of her letter to the Department of Agriculture (USDA). Note on the left side she includes the stages she will need in her letter: purpose, describe, explain and argue. I have placed a box around them.

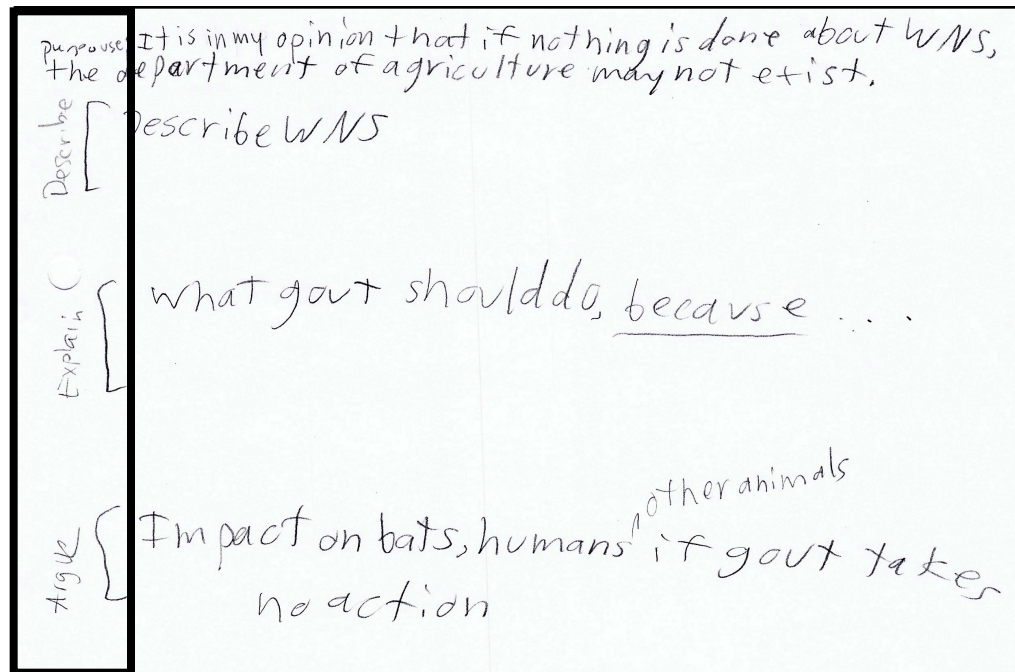


Figure 28: Secondary Participant Molly's "Roadmap" of Letter to the USDA

When creating a road map, students would also use their evolving genre metalanguage to discuss "ordering" of stages. This metalinguistic terminology helped them determine the most logical order of genre stages, to achieve the desired impact on the reader. I would often try to check in with students on their road maps at some phase of their writing process, encouraging them to discuss with metalanguage the stabilities and options they found relevant in pre-planning their texts, to which they would respond by discussing "ordering." In analyzing the videos, I found an increasing number of instances where students were discussing "ordering" as part of their metalinguistic expanse. They would debate with one another the most apt way to organize their text's "order" to achieve the most robust organization of a message.

I also found the metalanguage of “ordering” to be helpful when discussing with my students their first drafts. I encouraged them to analyze the draft for genre moves and possible omissions. Tally explains to me in a mid-point writing conference (see Figure 29) that she decided to add a “solution” at the end of her letter when she was revising because her “ordering was off.” When I asked her to explain how ordering impacted her writing, she said that she found the initial issue was that on her road map, a genre stage was missing. She explained that while her “ordering” was good, her letter was lacking a final move: a solution. More importantly, by adding this “solution” to her text’s order, it made the letter sound less like she was “whining.” Adding stages based on tone of letter is indicative of a shift in her understanding of genre, one as staged purposefully, with some optional stages necessary to get her point across. I have included the a portion of the transcript in Figure 29.

HG: How did you organize your roadmap?

Tally: Like the letters you showed us.

Tally: But I added a **solution** at the end when I was done writing. To **explain** more.

HG: Why?

Tally: When I didn’t have it, **I sounded like I was whining.**

Figure 29: Discussion with Tally about “Ordering”  
(Metalanguage in Bold)

Genre metalanguage was also helpful in the final phases of revision. Figure 30 is part of Tally’s final submission of her letter to Senator John Kerry. As the year went on,

with every final writing piece, each student handed in a genre analysis of their writing, such as the one in Figure 30. In this activity, students would compare their initial roadmaps to their final stages and label their stages on their texts to prove effective “ordering.” In Figure 30, Tally uses her genre knowledge and metalanguage to explain what she has written in her final bat letter, labeling each stage with a small explanation of the stage’s “order” on the right hand side of her text. This analysis was part of the final submission process for all writing assignments in Period 5. I have placed a box around her description of her ordering.

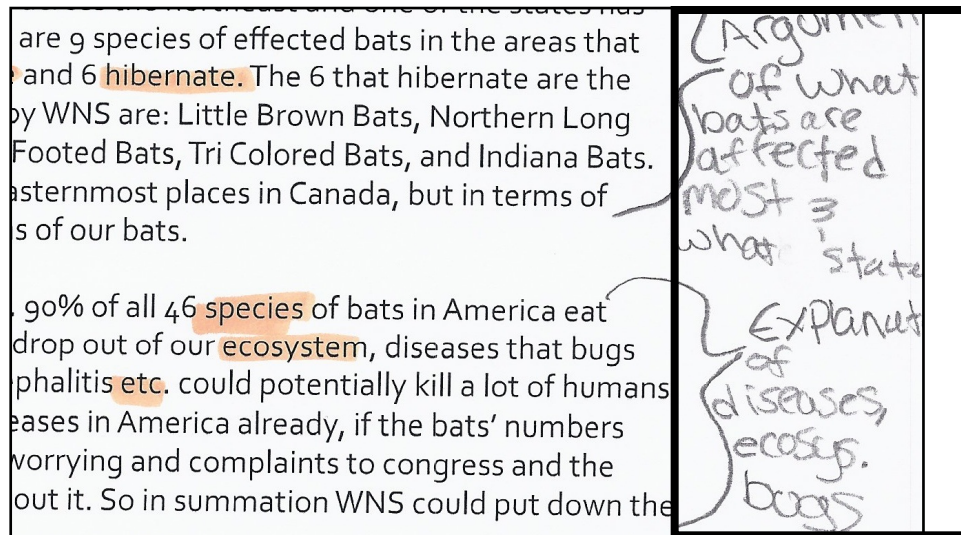


Figure 30: Tally Using Genre Knowledge to “Order” Letter

To be discussed in more detail later in this chapter, the government did respond to my students’ letters. However, my students were extremely disappointed with the response from the Department of Agriculture (USDA), in particular Kia and Tally. As they had been appointed the Period 5 bat journalists, they felt it was their job to write the USDA back to voice their disappointment. Figure 31 is part of a transcript between Tally, Kia and me that reflects a writing meeting concerning their possible roadmaps for the

response letter. This interview was recorded in March 2012, at the end of the larger project and after seven months of formal study. As such, the metalanguage on genre had significantly evolved over the months of the study, both for them and for me as an instructor. In this transcript, Kia and Tally are engaged in a discussion on ways they can receive a more appropriate response from the government about the bats, and what they would need to include in that letter in order to elicit a more satisfactory response. They are also discussing the ways in which the genre organization, or the “ordering” of their texts’ stages, impacts the response they want from the USDA. This discussion demonstrates a shift from the dependency on the fixed stages of texts that Tally used at the start of the year. I have bolded incidents of metalanguage in the transcript.

**Kia:** I hate when teachers give me topics. I don't like prompts at all.... I like being able to switch it around (shows motion with hands, moving things back and forth). If there are no questions that are asked, I can change how **my narrative is to be perceived**.

**HG:** ok--but--

**Kia:** (interrupting HG) **How people read it, that is how you get reactions.**

**HG:** So how people read it, is how writers get reactions?

**Tally:** yeah!

**Kia:** When you place certain words in a writing piece, it makes the paper....it makes...the writing piece ... **it makes it a specific genre... And when people read it, it will make them have a different response. Say if you have an explanation, people are going to respond to that differently than, if, say....say if you have an argument. People might debate it back and forth, or they might agree, or disagree.**

**Tally:** (adding to that) Yeah Ms Graham. And then an **explanation**, they can't really disagree because an **explanation** is usually correct, unless it is a **theory**.

**HG:** Right, it is just explaining something. So you are saying that the **argument** is going to get more of a response.

**Tally:** Maybe that is what we did wrong [in our letters]. We have to go back and do some more **ordering. Because we didn't ask for a response. We just explained and argued, so they did the same thing back.**

**Kia:** If we write back, we need to include what we want, **a response to our requests.**

Figure 31: Kia and Tally Discussing Genre as Staged to Elicit a Response

During this meeting, I note in my journal that I realized that Kia and Tally had shifting to understanding genre more as the function of a text. They made the connection between language, audience expectations, content, genre stages and wanted to apply this understanding in another discursive exchange with the USDA. They know that if they



want a certain response, they must ask for it with an additional genre move. They note the function of the scientific explanation was not enough, and perhaps they over explained in their initial letters and did not argue enough in support of their position. Kia explains in Figure 31 *“if you have an explanation, people are going to respond to that differently than, if, say....say if you have an argument.”* She is able to gauge the audience response and her expectations with text development. In terms of findings, I attribute the metalinguistic resources she has at her disposal to catalogue and discuss these aspects of text development as relevant in her own understanding text construction and academic writing.

This ability for my students to discuss genre critically marked a pedagogical shift for me as well. At this point in my data collection, I began to understand the value of informing a curriculum with functional language goals and using the context of culture to align language goals with students’ life worlds. Kia and Tally’s eagerness to continue this project beyond the unit boundaries demonstrates the importance of student-centered learning and curricular design that involves student interests and excitement.

#### Reflection: Genre and Metalanguage

At the onset of this project, I was interested in disrupting students’ fixed conceptions of genre. One of my earliest inquiries was in response to my school’s open response curriculum. I felt that it was important to expand students’ understanding of school writing as responsive to context rather than as a fixed writing assessment. While I was concerned that students would resist a shift in writing instruction, it was a relatively simple process to disrupt. I wrote in my teacher-research journal that with each assignment, students became more confident that they could design a roadmap with pre-

emptive, flexible stages. They could also analyze their texts for which stages had realized in their writing and why, and considered the logic of their texts through “ordering.” I attribute their gains in independence with their writing as a product of a functional metalanguage. While one could argue that they had a metalanguage to name the structure of the open response (restatement, reasons, clincher), the language and the text type were not functional, nor were they connected to making meaning in a text.

Finding #2: At first, students anchored most aspects of their classroom metalanguage in terms of audience expectations following tenor resources. Then, they connected tenor and an audience’s expectations to elements of field and mode.

The second finding of this study will examine how my students began to connect the genre based metalanguage to a metalanguage that also discussed register. As defined by Halliday, a register is the “variety of a language able to correspond to a variety of situations” (Halliday, 1989, p. 38). He furthers that the lexico-grammatical contributes to a register is in accordance to the rules of communicative purpose, social context and status of the user (Halliday, 2004). I explained register in this way to Ms. Bird and I discussed my goal with her, to instruct students to use a scientific language register using both Halliday’s field/tenor/mode variables and aligning my instruction with the CCSS language goals.

While I attempted to teach register related to science to my students in a few disconnected mini lessons throughout the fall, it did not really have any meaning to them. In an analysis of the final corpus, I note that discussing the register of science was rarely initiated by students, only by me. It was not until after the FWS officer visited my students to discuss WNS, and my students suggested that they write letters to the government requesting more environmental action and funds for WNS research, that the

concept of a text's register began to take on more meaning for students. Students in all five of my classes became excited and interested in the case of the mysterious local bat syndrome and wanted to be more involved. To create roadmaps for their letters, we first deconstructed expert letters written by environmental activists focusing on other topics. Video data captures students committing to stable and optional stages in a letter of request and setting up roadmaps to support their potential stages, utilizing metalanguage gained from instruction to name stages: purpose, explanation and argument. However, as we deconstructed these texts, students also began to notice the register used in these letters as "powerful," serving as a place to exercise authority with language. They noticed this language was impactful on them because it was *bossy*. The language used in the model letters convinced them that the respective authors were in control of the reader's opinion due to this bossy register. Learning this aspect of the advocacy register was important to them as they wanted to effectively communicate the need for government intervention to help the bats. Bossy language impacted the students' understanding of how language enacts power. They wanted to imitate this language to sound like an expert and an activist on behalf of the compromised hibernating bats near Northtown. Figure 32 is a transcript recorded two days after the FWS officer visited, two weeks into our bat study and four months into the school year. It is taken from a lesson focused on text deconstruction of advocacy letters. In this transcript, "bossy language" is explained to me by Kia and the two secondary dissertation participants, Josh and Molly. Metalanguage is in bold.

**Josh:** The **register** is all over the place, the **mood** I got was, when I was reading it, was I kept getting distracted [by] it, hopping around all over the place. I know that they are like trying to inform us and be like look we are trying our best.. and then telling us other stuff like what they are doing and what they do specifically, but I think that um, they were hopping around too much. And um, they um like did it on purpose, or else they didn't even try.

**HG:** It is interesting that you say a **register can give you a mood**, what do you mean by that? A **register** can give you a **mood**?

**Josh:** Whether they are taking us seriously or not.

**HG:** So a **register** can put you in a mood of being taken seriously?

**Tally:** Yes! And they are trying to make us forget what we were writing them for...**no lexical**

Figure 32: Kia, Josh and Molly Discuss Bossy Language

I responded to this interest in “bossy” language by designing language instruction around a text’s register as responsive to audience, reminding them how we discussed genre and “ordering” lesson to most impact the audience. Instruction focused them on how to choose language resources like the authors of the expert texts and included ways to be effective like a person in power linguistically. Students were provided opportunities to write sentences a few ways to try out how “bossy” they were, based on different audiences. I discussed with them that grammar helps them organize their work, but also helps them respond to an audience. We agreed together on the power of the declarative sentence. By discussing this syntax: *Subject+Finite+Residue* as “declarative,” we noted that this was the way to appear in control of the information. Students instantly rejected exclamatory sentences as they felt that the exclamation point (!) compromised an author’s

ability to appear bossy. Students also concluded that they did not think questions, even rhetorical ones, were as impactful as a declarative syntax.

Then I introduced students to personal pronouns, which they all knew from previous years of traditional grammar instruction. We identified them at the sentence level, describing them as placeholders for other nouns. I guided students to observe how personal pronouns worked when the desire was to sound “bossy.” Many students agreed that when they eliminated personal pronouns in the subject slot of a clause and in turn used a non-human participant (e.g. “the problem” or “the bats”), they preferred the impact of the language on the audience. Figure 33 demonstrates a non-focal Period 5 student’s work at “getting more bossy.”

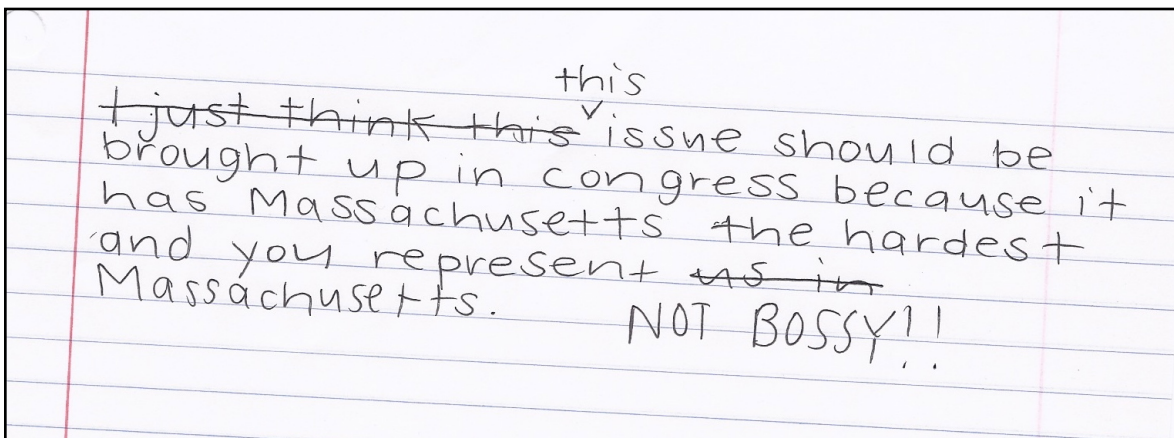


Figure 33: Elimination of Personal Pronouns in Response to a “Bossy Language” Lesson

Within a few days, my students actively discussed “being bossy” as a permanent part of the classroom lexicon. I asked students in Period 5 to explain bossy language to me again as I was curious as to how it evolved from the initial explanation (see Figure 32). Students concluded that “bossy” writing must first start with punctuation at the sentence level. Together, we reviewed and renamed the mood systems, students warning

me again to avoid the interrogative punctuation (?) or exclamatory punctuation (!) and their respective clausal syntax; to be “bossy,” the power, they told me, is in the declarative. Students were also invested in the elimination of personal pronouns, as they may overly personalize one’s writing and distract from activists’ broad goals. “Bossy” was also discussed in terms of mental verbs. Recall in Chapter Three, mental verbs are explained as one of the five delicate categories verbs fall into; mental verbs involve any process that goes on inside the head, such as think, worry, consider, contemplate, dream. Students felt that if writers suggested something was happening “in the head,” then it was not finalized and therefore, not bossy.

With such enthusiasm for a bossy register, I re-introduced my students to the register of sciences, as was my initial commitment to Ms. Bird. I discuss how students understood “science language,” as they named it, in my next finding section. However, understanding the content-area disciplinary language, or the register variable field, was also a way to demonstrate bossiness. Students explained an author invited credibility when she controlled the language of the field. One non focal student explained that if a writer “knows what they are talking about, then they’re bossy” (transcript, 12/19/2011). In my final review of the corpus, I determined students valued topical maintenance as part of being bossy as well, although they did not articulate this to me when I asked them to outright explain bossy to me. In terms of SFL, this would fall under the register variable mode. In particular, Tally felt that lexicality was the responsibility of the writer to maintain throughout a text, as it created a “chain” to respond to.

Being bossy became resourceful not only in discussing register and audience expectations but in revision. Students would test out how “bossy” they were, reading

their work out loud to one another. During these activities, they also developed a counter-bossy register, “chit chat.” Chit-chat was reserved for oral register, while bossy was more of an expert register. When reading expert texts or their letters out loud, if a register broke with an assumed bossy register, students would indicate language that the text became “too chit-chat.” Linguistically explained, chit chat language has less nouns before the verb and very casual lexical choices. Chit chat was described to me as efficient but *not bossy* in terms of the amount of content or the level of sophistication in word choice. In chit-chat, there was also more tolerance for varied mood systems; declarative, interrogative and exclamatory were all acceptable according to my students.

Chit-chat language was also used in my grading. When a register was oral, it was chit chat, and I could indicate that as such in the margins of their work. As a group, that was our code. If I marked up work as too chit chat, the student author knew that they needed to review lexical and grammatical choices and reconsider the audience’s expectations to get back to a more bossy register. Chit chat also indicated that the reader needed “more” language to understand the topic, not efficient language. In Figure 34, students explain their initial understanding of the cline that forms a bossy versus non-bossy chit chat register. Metalanguage is in bold.

HG: What are some things that belong in a letter like this? *[Note: I was asking this question in terms of genre moves and text expectations]*

Josh: **Bossiness**

HG: Oh! [surprised] um, OK **bossiness**, is that going to be **language or genre**?

Josh: urgh...language

HG: Ok. So what do you mean by **bossiness**?

Josh: Like...the right...like when you are talking to someone from the government, like **proper language**.

Non focal student: **Not slang**.

Kia: Also like....**tough language** so ... that...don't let them second guess your opinion.

Molly: **And noooo question marks!!!**

Figure 34: Transcript of Students Naming and Explaining Bossy Language

After analyzing months of transcripts, “bossy” clearly became the dominant language system informing student understanding of academic language. Students cited genre, field and aspects of mode as relevant features in audience as well, extending beyond tenor as all responsible for academic and professional credibility. Genre and mode were resources for being “bossy,” because genre and mode support textual cohesion. Field language demonstrated “knowledge,” also a strength of sounding bossy. Using content analysis of the final corpus, the final student understanding of bossy language reflected a mix of lexical and grammatical patterns. With data analysis, I conclude that bossy language consisted of the following grammatical features:



- Declarative mood
- Clause-complexes
- Extended nominal groups as subject
- Elimination of personal pronouns
- Lexical maintenance (see next section)
- Ordering of genre stages
- Inclusion of certain genre stages in place of others
- Language of the field (e.g. *Hibernaculum*, *fungus*, *syndrome*, *species*, *variables*) (see next section)
- Selective use of mental verbs

Students seemed proud that I would use their language resource when I was teaching and grading their work. I do not have the research tools to measure this type of efficacy, nor did I ever include this question in an interview. However, during the data analysis phases I note that when I labeled registers, such as chit-chat/bossy as a part of the classroom lexicon, students began renaming other registers too. They often sought my approval, wondering if I understood and supported their metalanguage. In particular, they named another register as “science language,” (see next section) and then expressed frustration with me weeks later that I would use “bossy” when teaching, “chit-chat” when grading, but that I would forget to discuss “science language” when I was teaching about bats (transcript, 12/19/2011).

It is also important to note that this type of “bossy” language instruction was not in my initial project design nor was a letter to the government. This collaborative lesson planning with my students serves as an example of instructional Design (New London

Group, 1996), in which students identify language instruction needed by using the metalanguage they already have to explain this need. According to my students, bossy language instruction was necessary for them to learn, to support them to get work done on behalf of bats. They were able to articulate that this register was different than the registers they were currently controlling and that they wanted to know how to write “like a boss” (transcript, 12/19/2011) to save the bats.

As I could see students clearly linking registers to purpose and audience, I decided to introduce the concept of academic language to my students. In the next section, I discuss how students came to better understand academic language as a register similar to bossy through SFL metalanguage resources. I did this in describing science language.

**Finding #3:** Students named field resources and clausal organization to distinguish aspects of academic language that supported their understanding of scientific writing

Over the course of the school year, I did mention infrequently to students that language is used differently in science than in other disciplines. I included a few mini lessons on disciplinary discourse prior to the WNS unit to demonstrate this. After we had deconstructed a few scientific texts to understand bats and the genre of the scientific explanation earlier the unit, students gained more familiarity with the idea that scientists write scientific texts. Further, as students now had experience in naming registers (bossy/chit-chat), it was easier for them to discuss the basic differences of language across disciplines.

I began with instruction on the register of science. I broke the unit’s bat texts into clause breaks for students to begin to observe patterns across clauses. With my support, students observed the noun groups in the clauses and other field choices used by authors

in the various documents about bats, disease and local impact. When observing clause breaks, they first commented on the declarative syntactic organization of field choices used by actual experts, likening it to the mood systems of bossy language.

This instruction also highlighted the manner in which clauses across scientific texts were organized with longer noun phrases in the subject slot of the clause. I encouraged students, with my help, to observe the participant/process choices in the Theme slot of a clause and how the participant was then explained in the Rheme slot. This register feature is termed “content packing,” or extended nominal information before the verb, a syntactic pattern regularly found scientific discourse (Schleppegrell, 2004; Gebhard et al., 2007; Gebhard et al., 2014). When the content builds from one clause to another, Halliday refers to this as a zig zag formation, which often occurs in instructional texts using a scientific explanation (see Figure 8 in Chapter Two for a sample of a zig zag analysis in instruction).

We continued to look at how the articles’ content also developed through the process (verb), and that the process contributes to the content. This instructional space allowed us to revisit process (verb) delicacy categories for students based on what verbs were doing for the text. Students observed that scientific texts had a combination of mostly material (action) and relational (to be) verbs (see Figure 19 in Chapter Five for Tally’s analysis of process delicacy on a different genre, the biographical sketch). They remarked that they did not like the occasional mental verb in a scientific text, which was an issue they took up in wanting to sound bossy as well. I encouraged students to connect the delicacy of the process to what the text is doing, explaining an unknown and scientific

issue. Those two content demands would therefore be reflected in verbs that teach (to be) and verbs that create action (material).

Additionally, I revisited pronouns, discussing how science language relies on pronouns. I explained that pronouns were useful to create coherence across a scientific text. Lessons guided students to note that in scientific registers, since so much of the field language is new and less familiar, that there was a value in repeating concepts with pronouns, grammatical metaphors and even repeating noun groups to help the reader build the information. Lessons showed students how a difficult concept in a scientific text (e.g. the fungus causing WNS) can be taken up in the next paragraph as “it” or “this.” We also discussed how lengthy the noun groups, or nominal groups, also can be represented as a pronoun in the following sentence. Students began to discuss this pattern of big noun groups+pronouns in the next sentence as “science language,” noting it as distinct. They renamed pronouns at this juncture “small but important words.” I discuss “small but important words” more thoroughly in the next section.

Figure 35 is a transcript from a lesson after students started to discuss the language of science. In Figure 35, Josh (secondary participant) critiques an article from National Geographic on WNS (see Appendix 3 and Figure 27). He renders this article not scientific enough, blaming the author for using conflicting registers and questioning how veritable National Geographic is as a resource we should use in our study. In this transcript, he explains how he understands science language to me. Kia and Tally then jump on his explanation and further the critique of National Geographic.

**Josh:** These people [authors/National Geographic] are being our definition of **chit chatty**, sounds like they are talking, not writing about bats or science. But they do put **lots of stuff before the verb**, and other new stuff **at the end of sentences**, so that's kind of **science-y**, but its **about the wrong stuff**.

**HG:** [laughing] Ok, anything else?

**Tally:** Their science language isn't as **informational** as ours.... Our **science language** though turned words around more, like nouns and verbs can switch. That's **science language**. Like approximate.

**Kia:** YEAH! [stands up, leaves her seat] and like with their language, **they didn't impact any new information....** *[transcript shortened]*... They **didn't give us new facts to explain** and that is what **science language** does.

Figure 35: Classroom Transcript on Science Language  
(Metalanguage in Bold)

In this transcript, the three students indirectly discuss how syntax contributes to their expectations on the function of scientific texts. Josh discusses what happens “before the verbs,” a function of scientific texts called nominalization. Nouns can nominalize, the grammatical function converting a word or phrase into a verb or adjective. Tally alluded to grammatical metaphor, clarifying for me that in science, nouns and verbs switch, “like approximate.” Without this feature, she criticizes the integrity of this supposed science language used by National Geographic. Finally, Kia discusses Theme/Rheme, although not by name. She maintains scientific texts need to impact new information within the text but that this article does not do that.

In my data collection, science language was far less mentioned when compared to bossy language, and was not as well described systematically as bossy language either. After the unit, it rarely was mentioned, whereas bossy language lasted all year. However, my students began to understand that scientists use a specific register to support their

disciplinary goals. The students advanced level of engagement with scientific discourse suggests not only language learning but an conceptual shift. They were able to relate language use to content area content area literacy and to discuss this language to explain how a text is constructed based on purpose. Students were beginning to see the basic elements of academic discourse, and how disciplinary goals shape and shift the language used in texts. Activists are bossy; scientists use science language; chit chat language should be avoided in professional discourse and publishers like National Geographic need to be wary of register conflation.

This student focus on register shifted my dissertation research from one focused on student text analysis to determine if changes happened in student writing over time, to a project primarily focused on how students took up SFL as a metalinguistic resource to explain academic language. Moving forward, I allowed students to fully share in the development of the language and began to use their language not only in my grading and in my instruction, but on worksheets, in my daily posted learning objectives and on my rubrics. Students in Period 5 would share their metalanguage with students in other classes and vice versa. I learned to allow all of my students to be active in this process. The next finding explores how students expanded on *bossy* and *chit-chat* language as descriptions of registers into more systemic dimensions of textual understanding.

Finding #4: Students renamed and repurposed aspects of mode (cohesion) when reviewing their work and analyzing the work of others.

Prior to the unit on bats, as stated, I taught mini lessons on language. A successful mini lesson were lessons where I used lexical chains with students, informed by the SFL variable mode. I understood lexical chains well myself and found them resourceful in my own writing. Lexical chains support writers as they are a tool to check for topical

maintenance. Writers can circle words or phrases that support a text's main idea and track a main idea's representation throughout the text. For teachers introducing students to SFL, I found an easy instructional entry point was teaching the elements of the theory that I knew best, such as how lexical chains realized the register variable mode. I also knew that giving students a chance to use colored markers to track language systems would make for a high interest classroom activity!

I began this instruction by asking my students if they were familiar with the idea that texts require cohesion and that there are language devices that promote coherence within clauses, between sentences and throughout the entire text. A non focal student in Period 5 responded, "Yes, conjunctions are used between sentences." I suggested that conjunctions were one way, but that there are other language resources called cohesive devices to make texts "stick together."

Instruction in mid-October began with modeling for students ways to track language choices across a text with a lexical chain. I modeled this for students on the overhead projector with various marker colors, showing students how to draw colored "chains" between words that represented a common Theme in an instructional text. Students were eager to draw lexical chains on our expert bat texts, so they quickly began tracking the linguistic choices authors make to represent a concept, mainly synonyms, pronouns, like ideas and demonstratives. Students began to call this activity "chaining." This metalanguage feature represents lexical chains much like sociolinguists use the concept, a chain across a texts that represents a series of cohesive devices that maintain a Theme and build new information in the Rheme of a clause. With this instruction, I was able to introduce the concept of grammatical cohesion as important when learning to

write, taking the activity into functional language discussions. I was also able to move them away from viewing certain parts of speech as exclusively responsible for cohesion to varied functional language choices.

Lexical chaining was a popular instructional activity. I set aside a special box of thin, colored markers, which we renamed “lexical marker-ups.” For the rest of the year, in addition to a genre analysis (see Figure 30), on every essay, students handed in another draft of their final paper, demonstrating how they maintained a lexical chain on their main argument throughout their text. Students were to conclude how “cohesive” their main ideas were, or if they required some “thicker chains,” student metalanguage used to judge how well they had maintained a topic by a chain’s “thickness.” Both of these analyzed drafts made for significantly valuable resources assessment; students analyzing their texts made it so I could see the way they understood the cohesive language and genre stages of their texts.

Figure 36 demonstrates Tally’s lexical chain on her first draft of her letter to Senator John Kerry (D-MA), with some of her notes on proposed changes she would like to make based on a review of the thickness of her “chains.” Note how she tracks her ideas throughout with different marker colors. I have followed her red lexical chains in the box on the right. Tally’s complete letter is included in Chapter Seven and in Appendix B.



Lexical chaining was not just an activity of Thematic monitoring either. I encouraged students during revision phases to also look over their chains and make decisions on their final drafts about the text. In Tally's analysis of her work, seen in Figure 36a, she provides an analysis of her final letter (seen in Figure 36), noting ideas she tracked well and places where she needed to add more information when she goes to a final draft.

<p>Dear Senator John Kerry,</p>	<p>Tally has tracked the topic of WNS with a red chain. Below are the words she has "chained" in red.</p>
<p>The purpose of this letter is to inform you of my problem with the overall issue of <u>White Nose Syndrome (WNS)</u>, a highly deadly disease that occurs in bats. I feel this issue should be brought up in congress because it has hit Massachusetts the hardest and you represent Massachusetts</p>	<p>White Nose Syndrome, disease, it.</p>
<p>WNS is a potentially fatal bat disease caused by a fungus called <u>Geomyces destructans</u>. The fungus appears as a white fungus with cotton webbed look, it "lives" on the face of bats and some parts of the wings. The disease affects them while they are in hibernation. When bats go into hibernation they lower their body temperature down to 55 degrees Fahrenheit and slow down their breathing to one breath per hour. They also slow down their heart rate to 20 beats a minute against their usual 400. Scientists have a theory on how this disease is transferred. This is the theory: bats hibernate in clusters, one bat has the disease and touches another bat and it spreads. The name for the spreading of the disease is bat-to-bat contact. Bats hibernate in caves in one cave WNS will kill 95% 50 100% of all bats in a cave. In one cave in New York 300,000 bats used to hibernate in the cave in 2007 and in 2010 only 35 were found hibernating.</p>	<p>WNS, disease  The disease</p>
<p>WNS is killing hundreds of thousands of bats across the northeast and one of the states has been hit the hardest is Massachusetts. There are 9 species of effected bats in the areas that have been hit. Three of the 9 species migrate and 6 hibernate. The 6 that hibernate are the ones affected. The species that are affected by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. The disease is in 16 states and some of the easternmost places in Canada, but in terms of western Massachusetts WNS is killing millions of our bats.</p>	<p>disease  disease</p>
<p>The impact of WNS is hurting our ecosystem. 90% of all 46 species of bats in America eat insects. If the insect eating were to suddenly drop out of our ecosystem, diseases that bugs spread such as West Nile, Lime Disease, Encephalitis etc. could potentially kill a lot of humans. People already worry of bugs that spread diseases in America already, if the bats' numbers</p>	<p>WNS</p>

Figure 36: Tally's Draft of her WNS Letter to Senator John Kerry.

Let's agree on what we are looking for:

COLOR	Subject to be tracked	Notes:
Red	White Nose Syndrome <sup>(WNS)</sup>	Tracked Well
Purple	Impact on bats	Interesting add a little More
Orange	Impact on humans	Add More
Green	Connection to job	Add More

Figure 36a: Tally's Key to her Chains

While their language “chaining” was metalanguage without much variation in meaning from the way it is used in linguistic theory, students were particularly drawn to the role of demonstratives as placeholders for previous content, especially in science language. They began to discuss these “small but important words,” that they found in their lexical chains, intrigued that words like *this*, *these*, *those* and *that* could be placeholders for an entire previous part of text. During lessons on science language, one student in another class noted beyond conjunctions, these could be called “small but important words.” I shared this with other classes, and it took immediately. “Small but important words” became another metalanguage feature that broadened students’ concept of cohesion and convinced them how important it was to maintain a topic over a text. It also remained as part of our classroom lexicon beyond the WNS unit (while other aspects of science language faded). Students began to critique writing without cohesion, observing the omission or need for “small but important words” to support the textual flow.

In Figure 37, Molly finds “small but important words” that are placeholders for the text’s main content. She writes on the bottom which concepts are represented by “small but important words” such as *it*, *this* and *them*.

11. This may be causing bat deaths, or it may be secondary to the cause of deaths.  
 12. Scientists are investigating the dynamics of fungal infection and transmission,  
 13. and searching for a way to control it.  
 14. The problem is that it grows in temperate climates, like caves.  
 15. But, more than half of the 45 bat species living in the United States rely on hibernation in caves for winter survival.  
 16. Eleven cave-hibernating bats, including four endangered species and subspecies are already affected by or are potentially at risk from WNS.  
 17. Scientists are studying ways to help them and fast.

---

Draw some conclusions about this text:

small but important words

① it: WNS                      ③ it: the fungus  
 ② this: the whole problem    ④ them: the bats

Figure 37: Molly's Conclusion on "Small Words," which are "Important" in Cohesion

With all of this metalanguage: genre stages, lexical chains and small but important words, students in Period 5 invented a concept of "lexical chunking." This new metalanguage mimicked the register concept of lexical chaining but with coherence between genre stages. Students felt that if register features "talked" to one another across texts, as seen through their colored chains and in "small but important words," then "paragraphs and stages needed to talk to each other, too" (transcript, 1/2012). Students explained that each paragraph needed to "acknowledge" a connection with both the previous and subsequent paragraphs. This instance of metalanguage was completely student invented. They checked their "lexical chunks" to ensure that paragraphs were not separate entities from one another, but demonstrated cohesive content from one to the next. Lexical chunks were then "proved" when lexical chains extended between paragraphs, or when "small but important words" represented some or all of the text in

the previous paragraph. In Figure 38, Tally and Josh discuss lexical chunking.

Metalinguage around this idea is in bold. Also of note and important in terms of participant ethics and ethnographic member checking, Kia and Tally felt it *very* important that Period 5 get FULL credit for this metalinguistic description (formal interview, 6/2012).

**Kia:** In the second paragraph, they talk about the Forest Service, and then they talk about that a little bit more later, but that is the only thing that they consistently talk about and **that's not what we wanted to hear.**

**HG:** That's not what we wanted to hear?

**Tally:** Yeah, wrong **audience** Vilsack. [US Secretary of Agriculture Thomas Vilsack]

**Kia:** We don't care about that. They should have a **chain** about bats or WNS, that would be good. But they only talk about that once or twice.

**HG:** Right, they only talk about that once or twice.

**Tally:** I feel like Kia said, there is no **lexical chain**, there's a little bit of information here, a paragraph about that there, a little bit about that there and oh, we'll just bring this right back

Figure 38: Classroom Transcript of Students Discussing “Lexical Chunking”  
(Metalinguage in Bold)

#### Reflection on Teaching: Cohesive Devices and Metalinguage

While students responded to my prior lessons on WNS with metalinguage on genre, bossy language and science language, it was during instruction on mode that I decided to explain to students that we were learning “academic language,” when we learned how to be “bossy” and when we discussed how scientists use language. I told them that academic language was now a component of curriculum and an expectation of

the new standards. I showed them the pages from CCSS (see Appendix 2a, 2b, and 2c) and discussed it as a new way to think of the language they learned at school in all of their classes. Since we already had a working metalanguage, I was able to demonstrate for them how I understood the distinction between academic language and “other” language and gave them credit for already naming and labeling two types of language that are a lot like academic language.

I also had them observe how cohesion is maintained across a text used at school in comparison with a conversation. I reminded them of the ways they discussed that the nouns and verbs in both “bossy language” and “science language” were different than in spoken language. We reviewed “small but important words” and how they were used to hold together “bigger” texts at school, where the author wrote a lot and students were expected to remember what happened at the start of the passage. From this point on (January, 2012), we discussed and named registers that were “academic” and agreed that different disciplines at school may have different registers. A point of distinction for students, one that was most obvious was in a text’s cohesive devices. Science language was one such example of ways students understood academic registers as differing by discipline due to the cohesive devices. More relevant than field vocabulary in a scientific text for my students was an analysis of the elements of Theme/Rheme in a scientific text, where students could discuss small but important words and lexical chains as supporting the goal of the author.

In teaching lexical chains and cohesion to students, I realized that cohesion is one of the most important aspects of academic language development. I found that is a language system that functions to promote textual coherence, paramount to academic

writing. Without an instructional understanding of mode, I saw my student's initial text development as compromised, even if they had a firm grasp on the content and audience. With an understanding of the various ways to control cohesion, I also observed the most significant jump in their ability to connect language choices to genre. During my analysis, I concluded that students began to see the power of language as academic when they were able to see the many resources which maintained the content in their lexical chains. When I both informed my lessons with mode as well as encouraged students to consider academic language as distinct, they expanded our classroom metalanguage to describe academic texts: cohesion, coherence, lexical chain, chaining and chunking. In particular, they would judge a text with "academic language" in terms of how much cohesion they could find in these texts. While not a focus on this work, this also serves as a significant shift beyond parts of speech grammar, which generally focuses students on sentence level features.

I also understood how to teach genre better as staged when I observed the ways students were able to "check" if their main idea was supported throughout the text with a lexical chain or "lexical chunks." With each genre stage, the lexuality of the chain was augmented through cohesive resources: synonyms, antonyms, pronouns, conjunctions, noun phrases, nominalization, grammatical metaphor and genre stages. Therefore, instruction on mode served as a significant shift not only for my students's understanding of a new mandate imposed on them by CCSS, but of my conception of how valuable it is to teach a text's functional language choices as connected to the text's context, field and discipline.

Finding #5: The classroom metalanguage, when used for analysis, drew upon aspects of genre, field, tenor and mode simultaneously. When using student generated metalanguage with analysis, students were able to connect register choices, genre, text content and the role of context in textual development.

During my analysis, I noted that metalanguage students used metalanguage to discuss classroom texts was used later in the data as an analytic tool as well. Students were using metalanguage to discuss how texts fit into the dynamics informing a situation. I was analyzing this data after the project ended, and in my analysis I determined students were starting to connect the *context of situation* to the *context of culture* (See Chapter Two for a description of these terms; Martin & Rose, 2008). When given the chance to discuss a text and further, critique it with metalanguage, students began to link the overall context's expectations to the actual text. This practice continued after the unit as well, students became stronger at highlighting this relationship as they gained and developed more language resources to do so.

An important example to student demonstration using metalanguage for critical analysis came after our unit on WNS ended. I sent off the 91 letters on WNS, and while I continued to collect data, it was not on as an intense level as I had during the unit on WNS. In my data collection, this marked the end of the unit. We began a new unit on Child Labor. My students were still excited to be a part of political activism from the WNS unit and my administration was enthusiastic that an English teacher wanted to continue teaching informational texts (actually, they were shocked). I designed the child labor unit with language learning objectives built on CCSS language goals, modeling it on the WNS unit, including another activist letter as a final assessment. We read the novel *Iqbal* by Francesco D'Aamo, a story of a Pakistani child who attempts to uncover the

prevalence of children working in the oriental rug industry's labor practices. We read informational texts that tied the ethics of child labor practices, some that may be connected to American companies. At the time of the study, Apple Computer was in the news for questionable labor practices at the FoxConn factory in China and there were reports in major newspapers of workers committing suicide to escape the deplorable conditions. Reports emerged of children (under age 18) working in these factories for long hours, inconsistent with World Trade Organization's (WTO) standards on child labor and equitable trade.

We discussed texts connected to child labor with SFL metalanguage. Students wrote letters to CEOs of major US companies, calling for an end to child labor practices and a review of their product ethics. While students were writing these letters to the companies, they expressed to me some concern that I had not been clear with them as to when they were getting return responses from the first round of letters we sent on behalf of the bats, and now, they also wanted to know if I thought that they would hear back from the CEOs. I told them honestly I expected this was the end of the activity for both the bats and the child labor activism and that we would most likely not hear back from either the government or the CEOs. Recall, in terms of my initial unit plan on informational texts, I had not included activist letter writing as part of my instructional design. I certainly did not expect my students to be invited into an exchange with either of these entities. We discussed the reality that the people the we contacted (or, the audience) were extremely busy and that they may not hear back from the government or major companies, or that at most, we may receive only a simple form letter. For the most part, that is what happened. As predicted, we did not hear back from any major



companies. However, we did receive response letters from Senator John Kerry's office (D-MA) and our district house representative, Congressman Jim McGovern (D-MA). Kerry's office staff sent a form letter about his efforts to save the wolves which my students found somewhat hysterical as there was no mention of bats and Senator Kerry thanked them for their efforts on the wolves. Meanwhile, Representative McGovern's office sent a letter to students encouraging them to stay in school and do their best. There was no mention of their letters, bats or the environmental efforts he would engage in concerning the demise of bats in our congressional district.

However, on March 15, 2012, after both of these units had been completed for two months and awaiting correspondence at this point seemed moot, certified mail was delivered to me at Northtown Middle School. Excitement grew in all classes on the team as I was called down to the main office right before lunch, over the loud speaker no less. The school principal announced proudly to the student body that certified mail had been delivered to Ms. Graham and her English students from the Department of Agriculture (USDA) (see Figure 39 and Figure 39a). I was asked to sign for the letter that I received from the USDA, which was in a secured and official *United States Government* envelope. I was thrilled and I guessed that students would be excited just to be acknowledged by members of the Executive cabinet office, assuming enthusiasm that some of their letters were granted correspondence that warranted certified mail! It had been months since we sent the letters and as far as my research went my project data collection had neared the end. I located and quickly set up my video camera and asked Kia and Tally to sit together right near the camera and re-insert themselves as classroom journalists on WNS one last time. I photocopied the letter during lunch and the three of us presented photocopies of

the letter to students of Period 5 as soon as they arrived. Video data captures my own personal excitement that our project yielded a personal response from the Executive Branch!

Before presenting the letter to my students, I quickly read it over. I thought it was an informative response that addressed the students and the situation with WNS. I was delighted that a federal official would put so much time into responding to a group of seventh graders. The letter was on official USDA stationery and included USDA wildlife maps for us to hang on the walls of our classroom. Figure 39 is the typed text of the letter.

*Dear Ms. Graham:*

*Thank you for your letter of January 9 2012, to Secretary of Agriculture Thomas J. Vilsack, which included letters from your seventh grade students regarding federal efforts surrounding White Nose Syndrome (WNS). Secretary Vilsack has asked me to respond to you on his behalf.*

*Established in 1905, the U.S. Forest Service manages 193 million acres of National Forests and Grasslands across 44 states. The mission of the Forest Service is to sustain the health, diversity and productivity of the Nation's natural resources which includes the bat populations found in the nation's forests. The Forest Services implements and supports quality land and resource management, locally and globally, through four executive branches: the National Forest System, State and Private Forestry, Research and Development, and the Office of International Programs. Our partnerships are critical in our mission to sustain world-class natural resources and diverse recreation, for the use and enjoyment of all. I have included A guide to your National Forests and Grasslands with this letter. The map will allow your students to see where all of our National Forests and Grasslands are located.*

*The Forest Service is working closely with the Fish and Wildlife Service, the Animal and Plant Health Inspection Service, other Federal and State agency and other partners to monitor the spread of WNS. Since first being detected in 2006, the deadly WNS has spread to hibernating bats in more caves each year. The newly discovered fungus *Geomyces destructans* is believed to be the cause of WNS. This fungus grows in cold, humid conditions.*

*The Forest Service is using an adaptive management approach to adjust management efforts based on new research findings and the spread of WNS. Our agency has been monitoring caves and bat populations; researching WNS properties and transmission; developing producers to prevent or minimize the spread of WNS, and informing and educating employees, partners, and the public on this challenging management issues. Until we have a better understanding of WNS, the Forest Service will rely on our regional leadership in close coordination with our Federal, State and local partners to make important bat conservation decisions.*

*I share your concerns regarding bat conservation, and I appreciate hearing your students' interest and passion in bat conservation. Hopefully, we can find ways to reduce or halt the spread of WNS. Please share my response with your students. Again, Thank you for writing and for your interest, support, concerns and recommendations.*

Figure 39: Text of Return Letter from USDA

Much to my surprise, my budding activists in Period 5 were not impressed and did not share my enthusiasm. Rather, they were deeply offended by the return letter. Using their metalanguage to analyze and respond to the letter, they concluded that the author's language choices dismissed them rather than responded to their requests, that the genre stages were sloppy and that the author of the letter was not Secretary Vilsack, and therefore, he had not taken them seriously. They concluded that this was obvious right away due to the lack of bossy language and the "bad genre moves" (transcript, 3/15/2012) and lack of connection with the audience.

Since the camera was rolling, I allowed them to discuss the letter openly, especially since they felt such disdain. All students were instructed to mark up the letter as they saw fit. Figure 39a is the marked up letter represented in Figure 39 with Tally's and Kia's collaborative metalinguistic analysis. The analysis of their copy of the letter demonstrates the variety of SFL metalinguistic resources they knew to use as a discourse analytic tool, including the images that students used in response. Figure 39a also suggests an epistemological shift as to how these students understand and define the integrity of a text; that texts are a combination of semiotic resources, register choices and genre stages which are all incredibly sensitive to the audience's expectations. The analyzed letter in Figure 39a relies on images, quotes and symbols, all of which contribute to more critical discourse analysis.



thesis being another genre tool signifying an argument. The concluding sentence, another genre move students renamed the “so WHAT,” is judged as an incomplete thought, identified as the “bad so WHAT” (labeled **b.** on Figure 39a). Understanding genre as purposeful, Tally and Kia critique not only the expected ordering of a return letter, but the fixed genre stages that were missing. They indicate that lexical chunking was not employed either, with “there’s no discussion between the paragraphs” with small arrows in between the paragraphs of the text (labeled **c.** on Figure 39a). There is also sheer frustration with the lack of generic integrity! They write on the bottom left corner that there is “no argument, no explanation of their true actions,” suggesting that as an audience, my students have developed a set of expectations for genre stages which are not realized in this letter (labeled **d.** on Figure 39a). They critique the response letter using images as well. In the top right hand corner Kia draws a distressed student with her “face in her palm,” acknowledging the perceived dismissal with the word “*Really?*” (labeled **e.** on Figure 39a). Finally, the ultimate insult, labeled **f.** Kia and Tally indicate that the author of this letter “thinks they are nine!!!!” surely an insult as they were twelve and thirteen year olds.

Unhappy that they felt they were dismissed, student emotions (and adolescence) demonstrated how integrated their language expectations had become as they critique the letter. This integration represents various levels of language learning as well as connecting language choices to context of use. Figure 40 is part of a transcript where students are discussing their analysis of the letter with their integrated SFL metalanguage. Note that most of their language is slanted towards tenor, to describe the dismissal, even a lexical chain (an aspect of mode) is explained as a purposeful omission. Since the letter

came a few months after the students sent them, their metalanguage had evolved since the bat unit. Therefore, this transcript reflects seven months of SFL informed language instruction, and of course, adolescence.

Josh: The **register** is all over the place, the **mood** I got was, when I was reading it, was I kept getting distracted [by] it, hopping around all over the place. I know that they are like trying to inform us and be like look we are trying our best.. and then telling us other stuff like what they are doing and what they do specifically, but I think that um, they were hopping around too much. And um, they um like did it on purpose, or else they didn't even try.

HG: It is interesting that you say a **register can give you a mood**, what do you mean by that? A **register** can give you a **mood**?

Josh: Whether they are taking us seriously or not.

HG: So a **register** can put you in a mood of being taken seriously?

Tally: Yes! And they are trying to make us forget what we were writing them for...**no lexical**

Figure 40: Transcript of Classroom Lesson Responding to Letter from USDA  
(Metalanguage in Bold)

One salient example of a functional metalanguage is seen in their response to an omitted lexical chain. As stated, Tally repurposes the absence of a lexical chain as something that was done to them (her classmates) on purpose. Without an obvious Theme/Rheme combination to be observed through a lexical chain, Tally notes that they were unable to respond back to this particular response. In addition, with no exacted chain to reply to, there was no lexical chunking.

At this point in the study, I had already began coding the data, looking at the ways students had evolved their metalanguage over the school year. By March, 2012, I had

labeled multiple examples in the data when students named concepts such as “genre and ordering” “register,” “chains and chunks.” “bossy and chit-chat language” and “small but important words.” These were staples in the way we discussed language in my class. However, it was in these lessons taped months later, that I also began to see the value of metalanguage as a tool of critical discourse analysis. Students were able to discuss and judge texts based on integrity, purpose and audience. On one hand, these students live and go to school in an extremely liberal environment, constantly surrounded by demonstrations and social activism. Mixed with their adolescence and interest in the topic, their response is out of proportion. Being overly critical and outspoken is a routine aspect of their context. However, an SFL metalanguage allowed students to discuss the role of language, affording them a way to theoretically substantiate their critiques. Students were demonstrating that they could assess text credibility with judgements on language choices present or omitted. I note this as an another important shift in their academic literacy development.

### Reflection: Analytic and Critical Metalanguage

A strength I find in using SFL to inform a curriculum for an extended amount of time with varying instructional goals is how much the theory has to offer. It provides endless ways to discuss language with students when teaching the relationship between the disciplinary lexicon, the functional grammar and their inextricable connections to the purpose of classroom texts. I note this as a strength of the instruction tool, which is in contrast to the critiques of SFL as simply too big for a classroom teacher to find useful (Bourke, 2005). In my experience, with so many resources to choose from, students shifted from discussing language patterns to learning to judge text quality. They were



using metalanguage to explain their expectations and understanding of texts by discussing an author's language options and ultimately language choices. Students not only saw themselves as responsible for controlling registers to help the audience of whom they are trying to communicate with, but also, that they too are an audience, one that deserve text quality. The self/other language dynamics students learned supports metalanguage as critical. When students can explain varied levels of texts and describe linguistic expectations as two-way, it could be argued students have an evolving language tool to question the academic texts presented to them on quality and truth. Lemke (1988) concludes that "if semantic patterns represent the heart of every academic subject, then we must learn how to describe them, how to embed them in the discourse of teaching" (Lemke, 1988, p.84). Gebhard et al. (2014) explain the goal of using metalanguage as an approach to critical text analysis as a salient aspect of language learning, in that teachers must "apprentice all students to a critical understanding of disciplinary bodies of knowledge and the social semiotic practices that construct them" (Gebhard et al., 2014, p. 8). The manner in which my students were able to critique the letter from the USDA, discussing the lexical-grammatical dimensions that construct and inform expert texts, as well as the actual text itself is language learning, but it is also academic language learning. This ability to analyze and question a text's register is a resource for students in understanding and describing academic language outside of the English classroom in other disciplines as well.

### Discussion: Student Metalanguage

While reflecting on the final stages of the corpus and my emergent findings, I found my experience with this instruction aligns with Williams (2000). In his findings on an extensive study on multi-age level SFL grammatics and SFL metalanguage instruction in primary/middle schools, he concludes “children's ability to reason abstractly and enthusiastically about language has been grossly underestimated” (Williams, 2000, p. 123). My limited expectations of what I thought my students may be able to do in learning SFL are seen in my initial decision to inform my lessons with field, tenor, mode and genre as separate language lessons. I felt this method would be clearer and less confusing, easier to research and would certainly be much easier in terms of curricular planning. As the primary researcher and as a teacher trying to teach with an SFL framework for the first time, I attempted to teach SFL “neatly,” choosing specific language goals for different mini lessons at first. I intentionally separated my lessons from one another, teaching field, and then tenor, and then mode, most likely responding to the linear pressures of curricular design and the urgent expectations of curricular planning in Northtown while rapidly adopting a new CCSS model. I chose specific genres at first too, not deviating much at all from the descriptions of the informational writing genres outlined in CCSS (see Appendix 2a). I questioned whether I should teach genre as a separate layer, as part of the *context of culture*, distinct from the *context of situation*. I felt determined to teach scientific language, almost as this separate entity all together, as I promised Ms. Bird I would. This overly organized layered approach to this work is despite my theoretical understanding and personal belief of the theory’s strength--

the detailed explanations between the interwove linguistic relationships between the text and context.

Yet, despite my initial lesson plans and even the presentation of my findings in this chapter, my analysis demonstrates ultimately how interlinked the functions of language are. My students did not ascribe to limited language categories, nor did they simply rename surface features by these categorical register variables. Instead, in this learning process, students began to closely link genre to register, or context to text, in ways that reflected their needs as emergent writers. They began to hybridize genre choices and subsequent stages based on positionality and purpose. Their intertextual presentation of language is a finding in of itself. In fact, Hasan (2009) concludes, when discussing metafunctions that “these functions of language, or metafunctions, are not hierarchal either; they are always happening at the same time” (Hasan, 2009, p. 9). In sum, language use is varied and contextually sensitive, and therefore academic language instruction should reflect this.

Language analysis also was a tool that allowed students to participate outside of the classroom. As adolescents growing up in a relatively politically liberal town, my students often expressed an appreciation for the academic opportunity to act out against the government, to question authority by writing letters to the government and major CEOs and to learn about such unique topics that mattered to their community (transcript, 3/15/2012). In short, I think they felt their letters mattered. For example, for the rest of the school year, secondary focal participant Josh constantly checked the USDA website for information on the state of WNS as it gained more attention on the national level. He

would bring in updates he found on WNS in the news and post them on my blackboard before school started, labeling them with summative updates for his peers. At one point, Congress did acknowledge the WNS issue in an environmental brief, (unrelated to our letters!) and Josh made his father drive him to school early so he could be the first one to tell me about it.

Willett (1995) explains the importance language learning, analysis and eventually, engagement with language outside of the classroom, in that “language learning is the process of becoming a member of a sociocultural group” (p. 475). It is possible that being included in discourses generally not reserved for middle school students was why of all the possible elements taught with an SFL metalanguage, it was the register variables most associated with tenor, specifically the systems of tenor that reflect audience, that students discussed and renamed more than other register variables or genre features. Even “science language” was catalogued as a demonstration of intelligence, of identity and positionally. Students also understood their writing in terms of genre and mode in ways more aligned with tenor too; that a lexical chain was “dropped on purpose” (see Figure 40), or that without the genre move of a solution in a letter, Tally expressed that she “sounded like she was whining” (see Figure 29). In all these instances, students were using language in ways closely linked with the interpersonal metafunction, in tandem with developing a more professional identity and learning to use language choices that support developing a voice with close attention to their audience’s expectations. These links, between mode and tenor, and genre and tenor, speak to how SFL theorists make claims of the importance of teaching these interfacing language

systems rather than separating language functions from text purpose (Butt et al., 2000; Williams, 2000; Schleppegrell, 2004). The students' metalanguage exemplify manipulation of language as choice.

### Conclusion: The Criticality of a Metalanguage

The New London Group explains this type of systematic and functional metalinguistic development as critical, that "any metalanguage to be used in a school curriculum has to match up to some taxing criteria. It must be capable of supporting sophisticated critical analysis of language and other semiotic systems..." (New London Group, 1996, p. 77). My students also evolved a language system capable of sophisticated analysis, using semiotic resources to discuss, name and critique academic and professional writing. This functional metalanguage also allowed them to be involved in their academic literacy development. They were naming aspects of texts for what they were doing, rather than responding to preset labels. With each metalinguistic system invented, students in Period 5 evolved language systems in the ways they needed to discuss academic language. Metalanguage also connected my students closer to the discourses of politics, environmental studies, science and activism made them more engaged than in my usual experience with teaching non-fiction topics. I do not have the tools to evaluate metalanguage and engagement with the course's content. In actuality, WNS is only somewhat interesting to study. I think students felt connected and that they mattered, and I attribute this felt connection somewhat to metalanguage. Having the language of science, the language of authority and the right to critique alleged experts with language put them on a more even footing with people in power. It was an

opportunity to participate in discourse generally not reserved for them. This finding suggests a need for larger studies that measure efficacy and access when language is available to bridge the access space.

While educational scholarship and the CCSS standards are both evolving a definition of academic language and how it should be taught, academic language research will benefit from an emphasis on the value of discussing unfamiliar language systems with students and building instruction on the linguistic components that comprise academic language systems. This type of work will also need to connect sociolinguistics closer to educational settings, fostering a closer relationship between language research, educational research and classroom practice.

While metalanguage serves as a way to discuss the process of student learning, Kia's and Tally's texts were products to analyze the impact of language learning on writing. In Chapter Seven, I analyze and discuss their texts as microtextual representative products.

## CHAPTER 7

### STUDENT TEXTS AS PRODUCTS. AN ANALYSIS OF STUDENT WRITING.

#### Introduction

As outlined in Chapter One, one of my research questions addresses how to use SFL to analyze student texts as a way of discussing their writing. Chapter Six highlights my students' processes of language learning with a functional metalanguage in response to the macrocontext. In this chapter, I focus on a microtextual discussion of student texts as learning products representative of the writing instruction during the unit. I begin with a description of some of the language features often found in Kia's and Tally's writing samples written throughout the fall, assessed with what I name a "quick analysis." Then, I discuss a full register and genre analysis of both Kia's and Tally's WNS letters in terms of field, tenor, mode and genre.

Using SFL as a tool for microtextual analysis was included in the initial research design as a tool for researcher objectivity. As I was both the writing teacher and researcher analyzing my students' writing and language experiences in my classroom, having a separate research tool served the integrity of the study as a tool to triangulate the findings. To compare my findings from the content analysis phases of my research, I completed a full register and genre analysis of Kia's and Tally's letters to the government written at the end of the informational text unit on WNS. I used these analyses as part of the final corpus to further look at the findings and trends in the overall corpus. These analyses are included in the final data corpus and in Appendix B.

In addition to this full register and genre analysis, I also completed varying levels of SFL analyses on student work. The full register analysis on the WNS letters was informative for my research purposes. However, this level of in-depth register analysis would not be logistically possible for a classroom teacher to do on a regular basis given the reality of the daily demands on teachers. Throughout this chapter, I discuss techniques for using SFL as a practical application tool for teachers based on my experience analyzing student work, which I refer to as “a quick analysis.” Other researchers have different views on using SFL efficiently in classroom application (see Gebhard, Chen, Graham & Gunawan, 2013; Macken-Horarik, 2011; Schleppegrell, Greer & Taylor, 2008). For the purposes of this study, I am defining a quick analysis as the teacher’s ability to read student texts with a more critical and analytic lens, focusing on both strengths and weaknesses in register and genre features in student writing. With a quick analysis, a teacher can then make functional decisions on future language instructional goals as a result.

#### Short Story Unit: Open Response Writing Assessments and Quick Analyses

As mentioned in both Chapters Four and Five, my focal curricular unit during the fall semester was a study of short stories and the corresponding elements of fiction which make up short stories (e.g. setting, characterization, plot, conflict, theme, mood and tone). This unit is also referred to as Phase 1 of my research, spanning from September to late November, 2011 (see Chapter Five for outlined research phases). In Chapters Five and Six, the included data displays are often examples of student work from the language-based mini lessons I was attempting before I wrote and taught a full instructional unit



with both content and language objectives. Throughout this unit, students read different short stories (e.g. *Lady or the Tiger?* by Frank Stockton and *All Summer in a Day* by Ray Bradbury) as platforms to study corresponding element(s) of fiction strongly represented in the story (e.g. plot and conflict in *Lady or the Tiger?*; setting and character development in *All Summer in a Day*). This unit reflects the changes in the new CCSS document, which calls for an integration between the focal content taught (elements of fiction) and writing used to assess the content “mastery.” This integration was an important shift in lesson design at Northtown Middle School during the 2011-2012 school year. To demonstrate “mastery” of each element of fiction, all seventh grade students were required to write five open responses, each response targeting one element of fiction in the focal short story (e.g., character, plot, conflict, setting, theme). The students were to follow the school’s open response format which would be assessed with the school’s open response rubric (see Figure 1).

Using Kia’s and Tally’s posts to Google Docs (see Chapter Five), I had ongoing access to their open response writing over the fall semester. I was able to do quick register and genre analyses on their open response texts to determine trends in their use of field, tenor, and mode resources, as well as their use of specific genre stages. The purpose of this analysis centered on tracing their development of academic literacy practices and informing my planning of future instruction. Insights from these trends were carefully logged in my field notes. I did this to support not only my data collection and analysis, but also to keep my commitment to the focal participants and their families so that a benefit of participating in the study would be focusing instruction on their specific needs

as writers. It was from these individual meetings and my quick analyses of their open response writing that I was able to gain a deeper understanding of the nature of academic literacy development and of my students as writers as both a researcher and teacher.

#### A Summary of Tally's Writing over the Fall Semester

An analysis of Tally's writing suggests she routinely used high appraisal features in producing texts. In working with her in one-on-one sessions, we named this an issue with tenor. To do this, I began by labeling features of tenor resources for Tally using model texts (e.g. polarity, mood, modality and appraisal). We began by looking at sentence structures. I encouraged her to observe how academic writers almost always depend on the subject+verb+object syntax rather than questions or exclamations. Then, we discussed that academic and professional registers use language choices which are more central and less committal, allowing writers more space to discuss topics. We looked at some of her language choices used to construct her open responses, such as using emphatic language and an excessive number of imperative clauses. For example, in her baseline open response (See Figure 3a), the linguistic system vacillates between formality and a more oral register, often using capital letters for emphasis: in clause 1, she writes (1) /Just Listen" is a GREAT book for Middle schoolers to read// followed with (3) /It is also NOT a very good book for middle schoolers because some of the issues are too mature.// With scaffolding, Tally was able to critique her baseline open response and discuss the language resources that contribute to constructing neutrality in texts (e.g lower appraisal, greater use of declaratives). She reported that she began to understand how credibility is maintained in professional texts when the author is not

emphatic or absolute, but objective (Field note, 10/2011). Finally, we analyzed model texts that I wrote for all of my students, as well as newspaper articles and other academic texts, to highlight how declarative clauses construct a more factual world and tone in texts. She was also able to identify the misplacement of interrogative and exclamatory mood systems in academic writing which were getting in her way of sounding more neutral, objective and authoritative.

Tally also struggled to understand how much information to include for her audience in her writing. Her texts appeared to lack an awareness of her audience's knowledge about the content. However, she was certainly not the only student in my classes for whom this was the case. In my quick analyses of her open responses, but also in other routine grading of all students' open responses, I noted many instances of student writing in which the audience was left out of core details about the content. This was almost always an issue with omissions in language resources that would explain aspects of the open response to help a reader better understand the content. For example, many students often included a character or a specific place in their open responses, but did not define who the character was or where the story took place. Without building the field in their texts, their reader lacked the needed information to understand the students' arguments about the stories they read. These omissions made the students' ideas and positions unclear. In response, I developed lessons informed by the register variables tenor and field to use with Tally in one-on-one sessions, as well as with all the students in Period 5. In these lessons, we discussed an audience's knowledge of a story and how

language resources needed to be included to respect what an audience needed to know to understand the open response.

After Tally had submitted a series of open responses in which I noticed this pattern, I again used her baseline open response (see Figure 3a). I read it out loud to her and asked her where her audience was “left out” (e.g. characters dropped in without details). After reading it with her, she noted that she may have created confusion for her audience when she did not include dependent clauses to help weave in characters. For example, she mentions someone named Anabel (clause 6) and Whitney (clause 11) without explaining who they were, despite directions in her baseline prompt which indicated she should write as though her reader had not read the book (see Figure 2). I noted in my field notes that as the prompt did not identify a clear audience, it appeared difficult for many of Tally’s classmates to enact this aspect of how an audience impacts register. Students struggled to figure out how to define what were most likely unknown characters and places in their novels in ways that supported a reader’s understanding of the literary analysis. For the most part, students defaulted to just assuming the audience would know who these characters were. Yet, this register feature is an important functional element of the genres related to literary analysis. I found my students required not only language instruction providing the audience more content knowledge, but they also needed support beyond one or two lessons on how to effectively use language to include the audience in unknown content. We discussed this as relevant even if the audience were an English teacher who assigned the text. In other words, exploring

aspects of field, tenor, and mode with students seemed to support them in having a greater awareness of their audience and an ability to write in less egocentric ways.

I also noted in my field notes that Tally required support in developing genre knowledge to achieve specific purposes when writing. During the fall, as I was scoring my students' open response paragraphs on the elements of fiction, I was able to more fully see the problem with using a fixed rubric for all students, but particularly for struggling student writers like Tally. To predict and assess every stage that a student will include before she writes is to position a student and a teacher for a type of writing that neither of them have any participation or agency in constructing. As a result, Tally initially produced open responses that could be characterized as strings of disconnected ideas that fit a formula regardless of the purpose of the text (See Figure 3).

In my field notes, I concluded that there were many possible reasons for this problem. I noted that she was struggling with the intersection of field, mode and genre. For example, she seemed to be struggling to generate the content (field) and language needed to create cohesion (mode) across the fixed genre stages she had memorized. Therefore, her issues with academic writing could be analyzed as more than a problem with genre knowledge. Rather, because she lacked an ability to construct the content or field in the first place, she had no way of logically and coherently writing about it. Instead, she seemed to mask this problem by adding adverbial and prepositional phrases to her clauses without realizing their function in subsequent parts of her text. Figure 41 highlights the way Tally's initially struggled to develop the content or field of the discourse across clauses. For example, data in Figure 41 shows a string of unrelated

ideas, which is representative of her early writing samples. The specific prompt she is responding to in Figure 41 was an open response requiring students to evaluate the effectiveness of the title *All Summer in a Day* as it relates to the setting of the story. In this example, Tally does not respond to the prompt and then adds circumstantial adjuncts onto her sentences without ever developing her ideas in the next clause or genre move. She does not develop her ideas in her circumstances or throughout the paragraph. This was something I noticed in a quick SFL analysis across her texts throughout the fall semester. In SFL terms, her inability to build the field contributed to her inability to construct Theme-Rheme patterns central to mode resources that function to make a text coherent or “flow.”

In Figure 41, I have bolded her circumstances to demonstrate the new ideas she introduces without any subsequent uptake. Figure 41 also serves as an example of how a teacher can conduct an SFL quick analysis of students’ text.

1. *The title of the story All Summer in a day means that*
2. *the sun came out **for the first time in 7 years***
3. *because **they’re on Venus.***
4. *It makes sense*
5. *because the kids had never seen **near the sun!***
6. *Except for one little girl named Margo.*
7. *Margot remembers the sun **unlike her peers.***
8. *It’s effective*
9. *because it had been raining **for 7 years.***
10. *It makes a big impact.*

Figure 41: Clause Breaks of Tally’s Open Response on the short story *All Summer in a Day* by Ray Bradbury.

My quick analyses of students' texts also allowed me to identify and address another issue that students were having related to the use of field resources in their writing. In my field notes I recorded that Tally (as well as other students) overly relied on relational verbs in ways that contributed to the inability to build the field in the texts. For example, she over used the "to be" verb at the exclusion of other more content carrying processes in her earlier texts. She also uses simple, non-modified nominals or non-specified pronouns as grammatical participants in the subject position or theme position across clauses (e.g., *she, the girl, she, her house, she*). In doing so, Tally rarely mentions the character's name or expands these nominals with modifiers to support readers in developing a greater understanding of the character, which is an essential demand of the writing task (e.g. the young girl, the student, the earthling living on Venus). Additionally, the majority of Tally's nominal and verbal groups tended to suggest an inability to nominalize, which is a linguistic feature of academic discourse. This fact illustrates an additional way in which Tally's and other students' inability to make field and mode choices interfered with their abilities to realize the purpose of the open responses they were trying to produce more expertly in the context of high stakes testing.

With these quick analyses of Tally's texts, I found I was able to create mini language lessons for all of my students or lessons that targeted the needs of Tally and Kia. While Tally struggled with academic language, the aspects of language she wrestled with the most were often relevant to teaching the whole class as well. For example, at times Kia, Tally and I would work together during lunch or in class as problem patterns

emerged in both of their writing. These small group sessions allowed me to develop instructional tools that I then used with the entire class.

### A Summary of Kia's Writing over the Fall Semester

As described in Chapter One, Kia was an extremely reluctant and anxious writer at the start of seventh grade. She often avoided any assignment dealing with writing until I would pull her aside and scaffolded the task with her during one-on-one instructional moments. In my quick analyses of the texts which she produced independently, it was evident she required support in learning how to develop a topic in writing. Teachers often tell students they need to “develop their ideas,” but in my experiences as an English teacher, students and other teachers do not have a clear understanding of what this phrase means in concrete, practical terms. As illustrated in the data chapter (Chapter Six), SFL provides both teachers and students with a functional metalanguage to do this work. Specifically, in SFL terms, Kia and other students need to learn how to expand the kinds of field choices they make and teachers need to explicitly teach students how use mode resources to manage the flow of disciplinary information to make an academic text cohesive across clauses (e.g., using greater variety and more specific cohesive devices; developing the ability to nominalize in constructing more coherent Theme-Rheme patterns). This kind of instruction also requires teachers show students how to expand nominals so more information can be packed into a clause. For example, an analysis of Kia's texts at the beginning of the year showed that Thematic maintenance was not something she controlled. Not surprisingly, there were no instances of nominalization, nor was there evidence that she was able to pack more content into the subject slot of her



clauses in the paragraphs she wrote focusing on the elements of fiction. These register features are both found in literary analysis of more expert writers in the middle grades and therefore can be the focus instruction to move all students forward along a pathway toward a greater ability to read and write denser disciplinary discourse (Christie & Derewianka, 2008, p. 158).

As a result, when working with Kia, I relied heavily on the teaching techniques consistent with the curriculum cycle in which teachers actively work to develop students' field resources or content knowledge by analyzing similar text types with relevant content (Derewianka, 1990). In this case, I introduced Kia to analyzing the literary genre of fictional narratives. This instructional practice allowed Kia to build field resources essential to this genre. I also provided explicit instruction to build her knowledge of this genre before she started to produce her text. To do this, I read the selected short stories to her twice, out loud, and stopped to check for understanding as I read. Then, to strengthen her understanding of the elements of fiction as they were represented in this genre, I occasionally conducted a quick clause break analysis to demonstrate to Kia how an element of fiction unfolded at the clause level, as well as demonstrating some predictable genre patterns which help realize specific elements of fiction. For example, in a one-on-one lesson, we observed how fiction writers generally include the setting towards the beginning of the story, which Kia proudly noted was so the reader "could know where the characters lived" (field note, 10/2011). This close analysis of the elements of fiction, the functional genre and language patterns that supported them helped Kia in developing an emergent understanding of how fiction operates.

Based on my quick analyses, I also noticed a strength in Kia's writing that some of her classmates lacked. I reflected on this in my teacher-research journal; I was so focused on the problems in student writing, that I never thought to observe strengths, especially with students such as Kia and Tally. However, Kia routinely responded to prompts. She could locate herself in the language of the prompt and develop an argument to support the question. In the baseline open response (see Figure 4a) that asked about the suitability of including her summer reading book on the school library's newest book shelf, she uses the field choices of the prompt as a strategy for managing the demands of this testing situation. She uses the word *bookshelf* and *for the library*. In both instances, she is making a reference to the prompt.

Kia also tended to choose more challenging writing tasks than her peers. I always gave students a list of open response prompts to choose from as a way of differentiating my writing instruction. In my experience, I have found that writing a compare and contrast essay to make an argument is significantly more demanding than writing a simple argument. I included compare and contrast open response prompts in my instruction for accelerated learners like Molly who needed an extra challenge. However, Kia had a strong sense of how to logically organize genre stages, so I did not dissuade her from choosing the more complex writing assignments in the class. In her open response paragraph about the short story *All Summer in a Day* by Ray Bradbury (see Figure 42), she chose to argue whether the setting was best presented in the film or in the print version. In Figure 42, I note her ability to set up an argument and the stages that will functionally construct both the contrast and her argument. Figure 42 is also an example of

quick analyses. This open response paragraph was written after nine weeks of SFL/GBP mini-lessons and was produced independently.

Numbered clause breaks on original text	Genre stage/ function
1. <i>The story All Summer in a day is better than the movie.</i>	position
2. <i>In the movie, they don't let you imagine the setting on Venus.</i>	movie problem 1
3. <i>The story lets you imagine all you want.</i>	text benefit 1
4. <i>In the movie you have an ending.</i>	movie problem 2
5. <i>The story doesn't.</i>	text benefit 2
6. <i>They give you a chance to close or end the story.</i>	text benefit 2a
7. <i>The reason for the children's actions are given to you in the movie.</i>	movie problem 3
8. <i>The story doesn't tell you why the kids or kids did it.</i>	text benefit 3
9. <i>The author Ray Bradbury wants you to choose.</i>	text benefit 3a
10. <i>It gives you a whole different story</i>	text benefit 3b
11. <i>then the person next to yourself,</i>	text benefit 3c
12. <i>if you're given the chance to make your own.</i>	text benefit 3d
13. <i>When you go watch the movie,</i>	movie problem 4
14. <i>you guys got all the same image or reason</i>	movie problem 4a
15. <i>you no choice.</i>	movie problem 4b
16. <i>That's what the directors make movies</i>	movie problem 4c
17. <i>so you don't have to think about it</i>	movie problem 4d
18. <i>they did it for.</i>	[unclear]
19. <i>I liked the story all summer in a day better.</i>	Final comment
20. <i>I had a choice.</i>	Final comment

Figure 42: Genre Analysis of Kia's Open Response on *All Summer in a Day* by Ray Bradbury

The genre stages in Kia's open response text closely follow the ones outlined as an

argument by Derwianka (1990, p. 74). Kia starts with a claim and then continues to develop this claim using a back and forth pattern of contrasting rationales for her argument. She concludes with a final comment that does not restate the prompt but is an extension of her position, a very difficult genre move at the seventh grade level.

Kia's writing samples and her response to one-on-one instruction focused not only how the elements of fiction operate but how these features are constructed linguistically. Kia, as an L2 writer, benefitted from access to content instruction and content language instruction to support her in building knowledge of the topic and the language that constructs disciplinary knowledge. She benefitted from ongoing, one-on-one lessons focused on how to use field specific linguistic choices to develop her topics more fully. Kia required this level of field support throughout the school year and beyond the units on the elements of fiction and WNS. As her teacher, I gained insights into both her strengths and weaknesses as a writer. The most significant strength of using a functional theory of language to analyze student texts is that it can be used with writers of all levels. While working with Kia on the language used to construct literature was important, it was just as important to capitalize on her sophisticated understanding of the genre stages of elementary literary analysis.

In addition, conducting SFL-informed quick analyses of Kia's and Tally's writing over the fall also significantly strengthened my understanding of SFL. This deeper level of understanding allowed me to design targeted language instruction for both Kia and Tally as well as all of my students. The language lessons I designed were more functional rather than purely formal (e.g., drill and practice in assessing with a formal rubric).

Having a functional theory of language underscored a critical shift in how I defend the interventions I designed for my students. This deeper knowledge also informed how I designed the WNS unit in ways that tightly targeted both content knowledge and the language needed to construct that knowledge.

Thus, the activity of conducting quick SFL analyses of student texts was highly significant for practical classroom application in this study. However for research purposes, as stated, I used a full register analysis of the WNS letters Kia and Tally wrote to the government. The next section is an in-depth discussion of Kia's and Tally's writing after four months of SFL based language instruction.

#### Discussion: Tally's Letter to Senator John Kerry

Tally's letter to Senator John Kerry (Figure 43) is her second and final draft. Students worked on their first drafts with guided instruction focusing on the texts' genre stages. In addition to a five-minute conference with me in between drafts, Tally had two weeks to write her final draft on Google Drive where she could request additional feedback from me. Figure 43 provides a clause break analysis of her text to support a more close SFL analysis of her textual practices.

*Dear Senator John Kerry,*

- 1. The purpose of this letter is to inform you of my problem with the overall issue of White Nose Syndrome (WNS),/*
- 2. a highly deathly disease that occurs in bats.//*
- 3. This is an issue that/*
- 4. should be brought up in congress/*
- 5. because it has hit Massachusetts the hardest/*
- 6. and you represent Massachusetts.//*
  
- 7. WNS is a potentially fatal bat disease/*
- 8. caused by a fungus called Geomyces Destructans.//*

9. *The fungus appears as a white fungus with cotton webbed look, /*
10. *it "lives" on the fat of bats and some parts of the wings. //*
11. *The disease affects them*
12. *while they are in hibernation. //*
13. *When bats go into hibernation /*
14. *they lower their body temperature down to 55 degrees Fahrenheit /*
15. *and slow down their breathing to one breath per hour. //*
16. *They also slow down their heart rate to 20 beats a minute against their usual 400. //*
17. *Scientists have a theory /*
18. *on how this disease is transferred. //*
19. *This is the theory: /*
20. *bats hibernate in clusters, /*
21. *one bat has the disease /*
22. *and touches another bat /*
23. *and it spreads. //*
24. *The name for the spreading of the disease is bat-to-bat contact. //*
25. *Bats hibernate in caves /*
26. *in one cave WNS will kill 95% to 100% of all bats in a cave. //*
27. *In one cave in New York 300,000 bats used to hibernate in the cave in 2007 /*
28. *and in 2010 only 35 were found hibernating. //*
29. *WNS is killing hundreds of thousands of bats across the northeast /*
30. *and one of the states has been hit the hardest is Massachusetts. //*
31. *There are 9 species of effected bats in the areas /*
32. *that have been hit. //*
33. *Three of the 9 species migrate*
34. *and 6 hibernate. //*
35. *The 6 that hibernate are the ones affected. //*
36. *The species that are affected by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. //*
37. *The disease is in 16 states and some of the easternmost places in Canada, /*
38. *but in terms of western Massachusetts WNS is killing millions of our bats. //*
39. *The impact of WNS is hurting our ecosystem. //*
40. *90% of all 46 species of bats in America eat insects. //*
41. *If the insect eating were to suddenly drop out of our ecosystem, /*
42. *diseases that bugs spread such as West Nile, Lime Disease, Encephalitis etc. /*
43. *could potentially kill a lot of humans. //*
44. *People already worry of bugs /*
45. *that spread diseases in America already, /*
46. *if the bats' numbers were to suddenly drop /*
47. *there would be more worrying and complaints to congress and the government /*

48. *telling them to do something about it. //*  
 49. *So in summation WNS could put down the bats numbers/*  
 50. *and in the end harm us.//*
51. *A theory I have for a possible solution to this problem is that possibly/*  
 52. *you could bring this up with congress /*  
 53. *and tell them what a big deal/*  
 54. *this is, /*  
 55. *and could possibly fund a research group.//*  
 56. *We could also inform children of this issue /*  
 57. *so the next generation has a good understanding.//*
58. *In conclusion Senator John Kerry this issue could break down multiple parts of our  
 eco-system/*  
 59. *and something we the students of "Northtown"middle school would appreciate a  
 congressional effort.//*
60. *I await your response on this urgent matter.*

Figure 43: Clause Breaks of Tally's letter to Senator John Kerry

In regard to genre knowledge, her text illustrates that she uses many of the expected genre stages found in letters of request. She opens with a purpose statement, which includes not only her purpose, (1) *The purpose of this letter is to inform you of my problem with the overall issue of White Nose Syndrome (WNS)*, but also the inclusion of content resources her audience may need (2) *a highly deathly disease that occurs in bats.//*, and her request: (4) *I feel this issue/* (5) *should be brought up in congress.//* She continues with a more in-depth explanation as to what WNS is and transitions to stating a position regarding what Congress should do to address the problems facing the bat population. She then concludes with a solution. In Figure 44, I have bolded how she weaves in a solution in her concluding genre stage.

51. *A theory I have for a **possible solution** to this problem is that possibly/*  
 52. ***you could bring this up with congress /***  
 53. ***and tell them what a big deal/***  
 54. ***this is, /***  
 55. ***and could possibly fund a research group.//***  
 56. *We could also inform children of this issue /*  
 57. *so the next generation has a good understanding.//*

Figure 44: Tally Weaves in a Solution as an Aspect of Genre as Staged

She concludes her letter with a request for a return letter. In class, we deconstructed professionally written letters, all of which included this stage and she appropriated this more expert way to close her own letter. There is evidence that she used the model texts we analyzed in class to establish the purpose of this letter and to provide readers a “roadmap” for the structure of her argument. Yet, it is important to note that she did not simply mimic the language of these example texts. Rather the genre stages she employed function with one another, or as she explained it, the lexical chains, or “lexical chunks,” extending across paragraphs. In this way, it appears she has some understanding of how genre and register features work together to support meaning-making in extended discourse.

In terms of audience, she is “bossy” by her classmates’ definition of this system of linguistic choices used to construct authority. For example, her letter includes field language and directly cites the Senator. Part of this control of language is her clarity regarding her audience, Senator John Kerry. As he is someone in power, Tally notes that he is in a position to do something. She acknowledges he is a senator and a member of



Congress. This is captured more than once, as she assigns him power and authority. For example, in clauses 5-6 she notes (5) */because it has hit Massachusetts the hardest/* (6) *and you represent Massachusetts.*// She also weaves him back into the conclusion of the letter in clauses 52-3 when she writes (52) */you could bring this up with congress/* (53) *and tell them what a big deal this is.*//

When I interviewed her about her letter, she explained that she worked hard to avoid features of “chit chat” in her language choices. In reflecting on her text, she said she was very “bossy” with Senator Kerry but without being rude because she included the phrase “*possible solution*” (51) in her text. She maintained that words like “possible” made her sound “polite but firm” (interview 1/2012). As stated in Chapter Six, she also explained she did not initially plan on using a solution. After reading her first draft, she found that without a solution, she worried she sounded like she was whining which she wanted to avoid because it would weaken her position despite her use of “bossy language” (see Figure 29, Chapter 6).

Tally’s letter also demonstrates a greater variety of process types than was evident in early analyses of her writing. For example, in this letter, 20% of the processes are relational; 61% are material; and 14% are mental. This distribution is more reflective of how processes are used to construct academic explanations and arguments. However, even more compelling than process variety is that Tally is beginning to use scientific participants and processes needed to construct content knowledge in this area of science: *hibernate, transfer, spread, migrate, inform* and *occur*. She also uses domain specific participants throughout her letter: *disease, issue, fungus, hibernation* and *heart rate*. As a

result, Tally is able to stay on topic and further develop a few central Themes throughout the text. Moreover, she is able to explain how and why she does this using the metalanguage the class developed. For example, during a discussion of lexical chains, Tally explains to her classmates that according to her lexical chaining, she has maintained several main topics adequately through out her draft: *WNS, impact on bats, impacts on humans and connection to his [John Kerry's] job* (see Figure 32 in Chapter 6).

While she could identify nominalization in expert texts, as evident in an analysis of transcripts of classroom discussions, she very rarely used them in producing texts. This lack of the use of nominalization is evident in her writing despite direct instruction focused on identifying and employing grammatical metaphor in writing scientific discourse. This insight suggests nominalization is an area for more direct and focused instruction with students who exhibit a similar pattern in their attempts to produce scientific discourse given the degree to which science relies on nominalization to construct meaning.

#### Discussion: Tally's Language and Genre Control

The most substantial change in Tally's writing from the beginning of the school year was her abandonment of formulaic writing structures in place of more flexible, purpose driven genre stages that she planned out before organizing her work. Tally identified the modeled expert texts as significant in helping her determine which genre stages she "liked and wanted to copy" (field note, 12/2011). Her letter opens with a purpose statement, then explains the problem, explains the impact of the problem, argues for change, and concludes with a lasting solution that urges for Congressional efforts both

in advocacy and funding. Important to the macrocontext of Northtown, she chose these stages based on what field resources she knew and controlled, as well as her clarity regarding the letter's purpose and audience. There were no fixed templates given to students for this exercise. Rather, students exercised choice regarding how they wanted to organize genre stages based on a variety of model texts they analyzed.

Another change in Tally's writing is her awareness of audience. When pressed in September about to whom she was writing, she hedged, "you, I guess" (field note, 9/2011). Over the course of the fall, she continued to struggle with naming her audience when writing open responses, despite our one-on-one meetings and classroom discussions on this aspect of producing this type of text. However, with this letter, a clear audience was set, and instead of asking me to name the audience for her as had been our practice during the elements of fiction unit, she understood and identified Senator Kerry for herself. She assigned cultural expectations to someone such as a senator and used language to address him by drawing upon the language resources she associates with power. She also reported that she had a better sense of how to make linguistic choices suited to her audience or the context of situation after she was chosen to interview the FWS field officer (interview, 3/2012). In both instances, she explained that writing to a senator and communicating with the FWS officer gave her an exciting opportunity to interact with professionals. In addition, from my own growth as a language teacher, naming an audience for students became a key shift in my understanding of how students need to have a deeper understanding of the context of situation and context of culture if they are to draw on and expand the range of linguistic choices available to them in

writing extended disciplinary texts (e.g., understanding the world of senators and making requests of them and of one from Massachusetts in particular).

Her text shows evidence of her enhanced ability to build the field and use mode resources to make her text coherent and cohesive. For example, the text has greater lexicality and cohesion than earlier sample texts. These abilities also contributed to how she understands herself as an author, including her position as “bossy” when she is in control of scientific discourse maintaining one topic to convey her point. This was extremely difficult for her at the start of the year. In Figure 45, Tally labels her science language contributing to a scientific explanation on her final draft. She highlighted where she thinks she is using science language in orange, and bossy in pink.

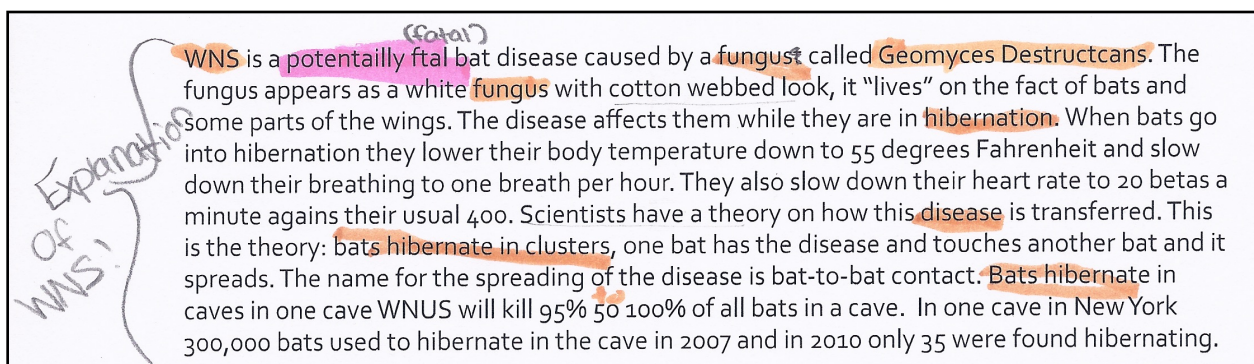


Figure 45: Tally Demonstrates “Science Language” Relating to the Genre Stage “Explanation of WNS!”

Finally, these shifts make her texts more interesting to read. Again, the data suggests a shift in Tally’s knowledge of audience may have supported her in appropriating more functional participant and process choices that reflect the purpose of getting a senator’s attention, as did lessons where she learned about the genre of a

scientific explanations and scientific language. Our one-one-one lessons focused on how functional language resources coupled with her classmates' developing metalanguage could have significantly contributed to her shifts and control of writing academically.

Discussion: Kia's Letter to Secretary of Agriculture Thomas Vilsack

During the bat unit, Kia chose to write to Secretary of Agriculture Thomas Vilsack, requesting the USDA take more action in funding regional research on preventing the spread of WNS. Her letter (Figure 46) is the second draft. She had a five minute conference with me in between drafts and she had two weeks to complete her letter. In addition, Kia asked to stay after school with me one extra session because she was very nervous to send this letter to the government without spending more time on it. Figure 46 provides a clause break analysis of her text to support a closer SFL analysis of her textual practices.

*Dear Secretary of Agriculture Thomas Vilsack,*

1. *PURPOSE: The purpose of this letter is to inform you*
2. *that **White Nose Syndrome** (WNS) is not only affecting the bat population*
3. *but also affecting agriculture immensely.*

4. *To begin with White Nose Syndrome is a disease/*
5. *that is killing bats at a rapid pace.//*
6. *The only evidence that scientist found so far/*
7. *XX is a **Fungus**/*
8. *called *geomyces destrucans*. //*
9. *This is/*
10. *what the scientists believe are killing the bats.//*
11. *They see/*
12. *that it grows onto the muzzles and wings/*
13. *and XX waking them up.//*
14. *They are being killed during hibernation.//*
15. *They wake up/*
16. *and their whole body temperature goes back to normal.//*

17. *When their body temperature goes back to normal/*
18. *they want to feed*
19. *so they go to hunt,/*
20. *but there is no food to hunt for.//*
21. *The way it gets on bats is cavers or bat to bat contact. //*
22. *There are ways to prevent this.//*
  
23. *Bats as we know them could be completely wiped out.//*
24. *The fungi are killing them/*
25. *which are making*
26. *the bat population go down/*
27. *and the bug populations go up. //*
28. *That also affects your department of agriculture/*
29. *by crops going own /*
30. *because the bugs are feeding on them. //*
31. *If we have more bugs from the previous year/*
32. *than as time goes on we will run down on resources. //*
33. *I know*
34. *bats don't want to die /*
35. *and we can prevent that [,] but not just for there benefit but for our economy or our resources. //*
  
36. *Agriculture is going to be the one/*
37. *that is hit the hardest/*
38. *because the bats save 3 billion dollars a year for the pest exterminators. //*
39. *That is why/*
40. *you need to help by funding/*
41. *or donating money to researchers/*
42. *to help prevent you losing money/*
43. *and so they don't have to suffer anymore.//*
44. *This is what your job is for/*
45. *and plus you owe the bats for saving you 3 billion dollars a year. //*
46. *I hope now /*
47. *you can see how important /*
48. *this issue really is. //*
  
49. *Thank you for your time.//*
50. *From, Kia//*

Figure 46: Clause Breaks of Kia's Letter to Secretary Vilsack

Kia's control of the genre features of a letter are clear, as she even labels

“purpose” (clause #1), which she told me she did not want to take out of her final draft

because she “really wanted Vilsack to know why she was writing him!” (Interview, 1/2012). Her text continues with an explanation of the problem, creating social distance between herself and the Secretary and positioning herself as an expert along the way. This aspect of her letter is evident in clauses such as (4) *//To begin with, White Nose Syndrome is a disease/* (5) *that is killing bats at a rapid pace.//*

She transitions to the next stage, an explanation of the impact of WNS on bats, where she weaves together the content she learned about the issue. Upon completion of her explanation of how a bat suffers when inflicted with the WNS (clauses 4-22), she then presents an argument that builds on the explanation stage, (23) *//Bats as we know them could be completely wiped out.//*

Similar to Tally, Kia’s text directly acknowledges Secretary Vilsack as her audience. She speaks to him very directly, acknowledging his relationship to the problem as one (27) *//That also affects your department of agriculture.//* She includes a formal request to him, stating */(38) That is why/(39) you need to help by funding/(40) or donating money to researchers.//* While Kia did not struggle with audience as much as Tally at the onset of the year, she appropriates language resources at the start of her text to connect with her audience using language that functions for this purpose (e.g. the pronoun “you”).

The genre stages evident in the middle of her letter continue to be very logical. She describes WNS and the fungus, labeling them as explanations in a writing conference with me. She explained to me that she added a result paragraph to her second draft because she “understood the results better after the FWS officer emailed her

back<sup>18</sup>” (field notes 1/2012). Next, she adds an optional stage, which she told me was named an “urgent” stage where she suggests this problem will become a larger issue for the USDA, and she wanted to tell them that. She writes in her “urgent stage”:

39. *That is why/*

40. *you need to help by funding/*

41. *or donating money to researchers/*

42. *to help prevent you losing money/*

She repeats this pattern again, explanation/result, explaining the role of bats in agriculture and the result of their demise. She concludes her letter with a call to action. However, she does omit a stage many of her classmates included, a possible solution. Instead, she ends with a final comment that is only loosely connected to her purpose statement.

The most significant shift in Kia’s texts is how she responds to the demands of the field to construct disciplinary knowledge. She employs generalized participants that reflect the scientific field she is writing about (“*scientists*” (10) “*bats*” (23), “*the bat population*” (26) and “*the bug populations*” (27)). Not only do these choices build content, but they also contribute to the coherence of her text. She maintains clear and coherent Themes throughout the text, mostly due to her control of field choices. The lexical chains Kia maintains over the course of the text include the Themes: *WNS; impact on bats; impact on agriculture; and role of government* (see Appendix B for both my lexical chain and Kia’s). Recall, many of the one-on-one lessons focused on building the field for Kia, as well as giving her strategies to access the language of the field when she

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<sup>18</sup> Recall, Kia and Tally were the class journalists and had access to the FWS officer via email.



was deconstructing expert texts. In addition to individualized instruction, all of my students read and analyzed multiple articles on bats and WNS, as well as interviewed a bat expert. Access to these various texts resulted in my students building their knowledge of the field by expanding their linguistic repertoires. In terms of Kia, this individual and group focus on the field may have helped her develop strong lexicality on the topic. She even references information in the previous clause or, in her words, a previous “lexical chunk” throughout her text. As demonstrated in Figure 47, I have bolded the ways she is starting to use generalized participants and relevant circumstances to maintain a Theme across clauses. This ability demonstrates how she was able to build the content of the text through field resources while simultaneously learning to manage the field using mode resources as a tool for cohesion.

24. **The fungi** are killing them/ [the fungi: referenced earlier, now explained, endophorically]  
25. which are making/  
26. the bat population **go down**/ [note in clause 24 the bats are ‘them’ and then here, they are ‘the bat population’]  
27. and the bug populations **go up**. //  
28. That also affects your department of **agriculture**/  
29. by **crops** going down / [the crops: unmentioned, but common resources all parties share investment in, used exophorically]  
30. because the bugs are feeding on **them**.//

Figure 47: Kia’s Emergent use of Generalized Participants and Circumstances to

Maintain a Theme across Clauses

As illustrated in Figure 47, Kia's control of a Theme is sophisticated and systematic in this text. It could also suggest that she has an emergent understanding of how to use the qualities of her explanation and that she can draw this information into her request stage with language resources. Finally, it adds to her own definition of "boss," positioning her as an expert and referencing her own work to prove it.

However, there are a few issues with her letter that could inform future instruction. Her purpose statement does not request action, only that she is informing Secretary Vilsack of this issue. She states (1) *PURPOSE: The purpose of this letter is to inform you/* (2) *that White Nose Syndrome (WNS) is not only affecting the bat population/* (3) *but also affecting agriculture immensely.* Other students in her class went so far as to identify the purpose of their letters by requesting more action from the respective government body or earmarking financial resources. In addition, Kia includes low instances of subject complexity. There were quite a few instructional lessons and language goals regarding how scientists use longer nominal groups to back up information in texts and then smaller words to represent these concepts. Recall from Chapter Six, students named these "small but important words" (e.g., this, that, it) and "science language" (White Nose Syndrome, hibernacula) as systems that benefit from this kind of grammar. Kia did not incorporate those lessons into her writing. I suggest that this is an implication of teaching ELL students; academic language, especially the language of the content area, is still a second language for ELL students. Given that L1 students did not all draw on these lessons either, it seems important that teachers attend

to how content language makes meaning in specific ways for L2 and L1 students alike. In other words, if L1 speakers need support on learning to use field language and sophisticated grammatical features, L2 learners most certainly will as well.

#### Discussion: Kia's Language and Genre Control

The most significant shift in Kia's control of academic discourse over time is her ability to effectively weave content into specific genre stages. When compared to her bat text, her texts from the fall lacked content carrying words. Her strength in organizing genre stages also became evident when she had instruction in building the field. In addition, she uses significantly fewer relational verbs than she had in the fall. For example, her opening baseline text included 53% relational verbs, which contributed to an inability to build the field. However, her bat text was comprised of only 27% relational verbs. The latter percentage is a much more appropriate balance in an academic register for both science texts and literary analyses. This process variety also impacted cohesion. As she transitioned to using processes with more content, she was able to build field and develop her ideas throughout the text.

In terms of audience, she also develops a clearer sense of how to interact with a reader. She references Secretary Vilsack a few times in her bat letter, even connecting to him right away in her first clause with the pronoun "you" (1) */The purpose of this letter is to inform you/*. She includes this pronoun to more directly engage him in other parts of the text. She labels his department and her understanding of his role in it */(28) That also affects **your** department of agriculture,/* and *(43) /That is what **your job** is for!//* She calls him to action in ways that will benefit both the bats and the USDA: *(40) /**you** need*

*to help by funding/or donating money to researchers/ to help prevent **you** losing money/ (41) or donating money to researchers to help prevent/ (42) **you** losing money.*// Finally, she reminds him how much he has gained from the bats, by stating */and plus **you** owe the bats for saving you 3 billion dollars a year.*// As with Tally, the practice of naming an audience allowed Kia to conceptualize the language necessary to connect with someone labeled in power and someone who could enact change through her choice of pronouns.

More research needs to be conducted using a register analysis to draw conclusions about how students use and define a functional metalanguage and the impact on their writing as a result. However, there are a growing number of studies that suggest a functional metalanguage supports students and teachers in talking functionally about texts in ways that support reading comprehension and text production (Schleppegrell, 2004; Gebhard, Chen & Britton, 2014).

### Reflection

Throughout these analyses, I was trying to make sense of how significant the shift was in both students' texts and how to write about these shifts analytically in my research. When looking at the respective data displays, I was looking for one significant trend on which to hinge these findings. However, I found that it was more than just one trend, as is usually the case in study writing. As I spent more time studying these analyses, I concluded students benefitted from a variety of lessons linking the context of situation to the context of culture. Not only Kia and Tally, but all students responded to writing with a clear purpose and to an audience they were invested in. In order to become engaged in WNS, they also needed tools to access the disciplinary texts that outlined the

problem. After students spent time building the field resources necessary to read and write about WNS and bats, they also gained a deeper understanding of language when they had support in using functional conceptions of language to critically analyze disciplinary textual practices. Finally, students of all levels continued to respond to lessons that focused on a critical language apprenticeship in producing extended, decontextualized disciplinary texts.

When using the analyses comparing the fall writing assignments with no stated purpose to the purposeful bat letter assignment, I concluded that using engaging content was a key element to success in teaching writing. Emergent writers need to be presented with interesting and relevant content. The open responses are not drawing upon student interests as they had no specific purpose. While just a simple study of bats could have been rather boring, I argue that allowing students to engage with Northtown, with a bat expert and write to the government all had a significant impact on their interest in writing. It also allowed me as the teacher to probe multiple avenues of language instruction due to students' continual interest. Throughout the unit, they were excited to be "talking like scientists" and using modalities such as interviews, newspapers, blogs and letter writing. In short, writing the letters clearly motivated them far more than the open response writing did. In the implications chapter, Chapter Eight, I discuss issues with the standardization of literacy and how using standardized literacy practices may not only be unhelpful for students, but that such instruction may actually negatively impact students like Kia and Tally who struggled with academic literacy in the first place. In Chapter Eight, I also consider how using a functional language pedagogy and introducing

teachers to efficient functional analyses are important considerations for the field of language education.

## CHAPTER 8

### IMPLICATIONS

#### Review of the Research

This dissertation explores how a language pedagogy informed by systemic functional linguistics (SFL) can be used to instruct students in learning the language systems inherent in academic literacies to support them in secondary content area classrooms. The research examines the manner in which this type of pedagogy extends a student's understanding of how language shifts based on purpose, audience and content area disciplinary demands. Research also examined how student writers can learn to exploit the language choices they have based on the text type they are writing. A new set of de-facto national benchmarks, *The Common Core for English Language Arts* (CCSS), name this literacy type academic language, as do various L1, L2 language and literacy researchers. While there are different perspectives as to what constitutes academic language within policy and research, there is relative agreement across the two bodies that content area instruction should include language learning goals to support students in accessing the disciplinary literacies. Language goals should support students in learning the language and text types that construct the knowledge base of the discipline. Both policy makers and language and literary researchers draw on aggregate and qualitative data which suggest the inclusion of language based instruction allows students to learn to use and manipulate language resources that present in disciplinary texts and learn to include them in disciplinary writing (Schleppegrell, 2004, 2007; Darling-Hammond, 2000; National Governors Association Center for Best Practices, 2010). Research in this

emergent field also suggests that students benefit from more direct language based instruction to support learning about the language used at school as a way of inviting more equitable access into the disciplines and by proxy, the working world which also uses language in specific and sophisticated ways (Willett, 1995; Schleppegrell, 2004; Gebhard et. al, 2013; New London Group, 1996). Researchers continue to invite calls for integrated and functional language teaching in the disciplines, while policy makers are motivated to locate and discuss “best [teaching] practices” teachers are using to embed language instruction into content-area curriculums (Tomlinson, 2001; 2003).

#### Restatement of the Problem: Language Education

The call for research to include more integrated language instruction in secondary curriculum is not new. It comes from various histories located within applied linguistics, educational research and policy. There have been extensive debates on how to teach grammar and vocabulary, some debates questioning whether students benefit from Traditional School Grammar (TSG) at all, usually sentence level instruction focused on parts of speech grammar coupled with behaviorist assessment practices used for evaluation (Kolln & Hancock, 2005). The keystone of the debates often focus on the value of TSG when taught and assessed separately from reading, writing and content area instruction rather than language instruction focused learning language useful to support reading and writing and learning in the target discipline (Myhill, 2005). In a statement made by the National Council for Teachers of English (NCTE) in 1963, a controversial comment went so far as to suggest teaching behaviorist grammar was akin to detrimental instructional time. Anti-grammar instruction advocates capitalized on this



statement and laced it with rhetoric describing TSG as having “harmful effects” when taught in place of other instruction in a traditional English course (Braddock, Lloyd-Jones & Schoer, 1963). Elbow (1973) noted an emergent writer’s attention to grammar and mechanics “takes crucial energy away from working on your writing, and worse yet, the process of learning grammar interferes with writing: it heightens your preoccupation with mistakes as you write out each word and phrase... For most people, nothing helps their writing so much as learning to ignore grammar (Elbow, 1973, p. 169). Many of these comments and commitments resonated with secondary English teachers too, who also saw no value in teaching their students TSG with the parts of speech to support student writing (Weaver, 1996a; Kolln & Hancock, 2005).

Yet, despite years of debate, most current grammar and language instruction still reflect the TSG, and of late, grammar is valued for testing purposes (Kolln & Hancock, 2005). Fearn and Farnan (2007) explain that over the last decade, there has even been a swing back toward grammar for assessment for many reasons, stating

The English Language Arts course of study includes, and will continue to include, grammar. Many teachers are trained in and believe in the grammar they teach. Tests now feature it. Education policy-makers believe it belongs. It can be tested objectively. And most importantly, the standards-centric culture includes it. (Fearn& Farnan, 2007, p. 3)

In 2003, the National Commission on Writing in America’s Schools and Colleges discussed the pedagogical move back towards traditional grammar and vocabulary instruction. They used data from the National Association of Educational Progress (NAEP), as well as surveying over 1000 teachers and school leaders on current practices in writing and grammar curriculums in secondary classrooms (National Commission on

Writing, 2003). The Committee set out to describe written instruction nationwide but the bulk of their report focused on issues with writing pedagogies. Their results and suggestions were more focused on language education than any other aspect of writing instruction. Their report called for changes in teacher education around language instruction and a nationwide review of the purpose of behaviorist grammar instruction and assessments thereof as part of a writing curriculum (National Commission on Writing, 2003, p. 11). While surveying and visiting English classrooms from various age levels and demographics in the United States, the Commission's conclusion on the grammar lessons they observed were that the more separate and behaviorist teaching practices did not promote students to make gains in writing. The report explained that

Writing extends far beyond mastering grammar and punctuation. The ability to diagram a sentence does not make a good writer. There are many students capable of identifying every part of speech who are barely able to produce a piece of prose (National Commission on Writing, 2003, p. 13)

These debates have dominated the literature for the last 40 years, at times, overshadowing scholarship problematizing critical language teaching and research needed to support student learning with the language needed for academic writing (Smith & Hillocks 1989; Weaver, 1996a; Myhill, 2005; Applebee & Langer 2009; Gebhard & Martin, 2011). Debates on grammar have also been called into question in terms of linguistic privilege, in that students who do not have access to Standard English (SE) grammar may be penalized further if instruction and subsequent assessment measures syntax patterns of those students whom participate in discourse communities with

dialectal variety differing from the language assumed at school (Schleppegrell, 2001, 2004; Green, 2002).

The role of language instruction has even been identified as a possible school reform. In 2000, Darling-Hammond quantified an extensive list of school reforms she saw as necessary nationwide. In her list, she cited a reconceptualization of language instruction a salient and necessary school reform (Darling-Hammond, 2000). She concluded that current practices in vocabulary and grammar instruction are both dated and problematic in that they:

Focus[ed] on the components of language, such as phonology, morphology, syntax, and lexicon. This narrow view overlooks the social nature of language as a tool for communication and a mechanism through which content can be explored and examined. .Language study is generally decontextualized and unrelated to the lives of students, their school, or the community, and much of language instruction is grammar driven (Darling-Hammond, 2000, p. 15).

Critical language and literacy scholarship (Luke, 2000; New London Group, 1996) echo Darling-Hammond and have moved some language research beyond the debates. Instead of taking a side in the debate, these scholars have taken a position on teaching language with a functional theory of language rather than trying to make the parts of speech instruction become “more” functional for learning to write. This small but growing body of scholarship has gained traction too; findings that suggest teaching students and teachers how to use language as a functional tool supports academic literacy is relevant and resourceful for academic literacy (see Gebhard et. al, 2007; Gebhard et. al, 2013; Achugar & Schleppegrell, 2005; Achugar, Schleppegrell & Oteíza, 2007; Moore & Schleppegrell, 2014; Pavlak, 2013, Schleppegrell, Greer & Taylor, 2008). It is within this

scholarship that I locate my study as both a response to teaching academic language and a move away from what is discussed as dated grammar and writing instruction. I also seek to participate in the policy conversations around language instruction and best (teaching) practices.

### Restatement of the Purpose of the Study

The purpose of the study was two-fold. First, it was in response to both the calls for critical language pedagogy, and my interest in how designing a functional language pedagogy could respond to these calls in the research. My goal was to design a secondary content based curriculum with language learning goals to support content learning objectives. This unit design was opposed to a more routine curriculum design model wherein content drives the unit design and language goals are secondary, if evident at all. I was eager to apply SFL as a theoretical framework into classroom application for language learning, especially given CCSS's strong emphasis on the development of students' academic language in all subject areas. The second purpose of the study was in response to standardization of literacy instruction that has gripped many schools in an attempt to boost test scores, including mine. Test scores are increasingly powerful indicators of a school's state rank, access to funding and independence from state mandated curriculums. As a result, writing instruction has become standardized and quantified in response to the importance of testing. In designing a critical language pedagogy, I wanted to both develop useful academic literacy lessons for my students while also challenging standardization practices put in place as linear measures of student progress.

## Research Questions

To write the foundation of this study, I outlined research questions intended to probe the feasibility of designing instruction with critical approaches to academic language and writing within a high stakes testing environment. I also wanted to learn if there were shifts in student writing under this pedagogical language model, and to then use SFL to discuss student writing with more dimensions than a numerical standardized writing rubric can capture (See Figure 1). By the end of the study, I committed to two final questions and organized my research into four fluid phases of data collection and analysis spanning from 9/2011-3/2012.

The final research questions informing data collection and project design phases are:

1. *How did my instruction change over time, if at all, as I implemented an SFL based pedagogy to support academic literacy development in my classroom?*
2. *How did my students' textual practices shift over time, if at all, in response to an SFL/GBP pedagogy?*

To answer these questions, I depended on methods that allowed for flexible qualitative question changes as well as the teacher-as-researcher, both important aspects of this study's design.

## Summary of Methods

The initial design of my study was to teach with SFL and determine if there were shifts in student writing in response to my instruction. With an analysis of standardized student writing samples in September I felt using SFL based language pedagogy could also disrupt these traditional grammar and writing practices my students overstated in the

fall. Simultaneously, instruction also supported all students in approaching writing, even within the various high-stakes genres they will face as their schools adjust their curricula to align with to CCSS. To do this, I determined SFL as a methodological CDA tool useful for microanalysis of student texts to support both of these goals.

As the project progressed, the design shifted to a more comprehensive ethnographic narrative of my students language learning processes with SFL. Students used aspects of SFL to develop a functional metalanguage as a tool to discuss academic literacy. This analysis of my students' language learning process is a deviation from my original design. I used the tools of ethnography and teacher-research to support the collection of data on how students developed and continued to manipulate this metalanguage in response to my teaching. I journaled about my lessons while watching videos of my Period 5 ELA classes, transcribing elements when students in this class discussed language functionally. I also used formal and informal interviews as well as extensive artifact collection to create a diverse corpus focused on understanding how my students came to understand these literacies.

While teacher-research and ethnography were useful tools for data collection, the qualitative case study methodology was most useful for both the study's final design and to support me in organizing my data collection using the emphasis on studying the bound unit of analysis. After ten weeks of teaching a unit on short stories and corresponding elements of fiction in the fall semester, using the mandated on response writing for assessment, my study began to take shape. I narrowed my focus down to two focal participants, Kia and Tally, and followed them both closely to understand their response

to the lessons through both talk and their writing. Often qualitative case study researchers studying classrooms highlight the experiences of a few students as somewhat representative of how other students may be responding to instruction (Heath & Street, 2008, p. 32).

### Findings

While I focused on the emergent findings as a result of the process of developing a metalanguage in Chapter Six, and discussed shifts in student product with varying types of functional analyses of student texts in Chapter Seven, there are some overall findings of this dissertation that both align with other studies and have implications for the field. In Table 8 and Table 9, I outline the findings in response to my two research questions. The findings, theatrical discussion and subsequent implications are addressed in the following sections.

Table 8: Outline of Research Question #1 and Findings

Research Question #1	Theoretical construct	Methods/ Data collection	Findings	Data Display to support findings. Figures (as #s) found in dissertation.
<b>How did my instruction change over time, if at all, as I implemented an SFL based pedagogy to support academic literacy development in my classroom?</b>	Genre Based Pedagogy (GBP)  SFL/Register theory: field, tenor, mode  The curriculum cycle	Ethnography/field notes of video data, in-depth interviews, artifacts  Teacher-Research/ teacher-research journal  Qualitative case study/ artifacts, transcripts focused on language lessons within the bound unit of analysis.	<b>Finding 1:</b> Using SFL to inform my instructional language goals supported a shift in my understanding on teaching academic language as a central part of content and writing instruction.	Fig 5: Teaching transitive analysis on WNS text Fig. 6: mini lesson on teaching tenor Fig 7: Tenor shifts based on audience (Facebook) Fig 8: Zig Zag lesson Fig. 14: learning to write language goals Fig. 15, 20: teacher-research journal Fig.17: rethinking traditional plot chart Fig 21: Final collaborative assignment on WNS
			<b>Finding 2:</b> Engaging with micro analysis of student texts shifted my ability to look at student texts dimensionally. I was able to see entry points for language instruction beyond surface level features to support student writing.	Figures 23-26: Analysis of student texts from the fall semester. Figures 41-47: Full and quick analyses of student texts. APPENDIX II: Full register analysis of Kia's and Tally's texts.



Table 9: Outline of Research Question #2 and Findings

Research Question #2	Theoretical construct	Methods/ Data collection	Findings	Data Display to support findings. Figures (as #s) found in dissertation.
<b>How did my students' textual practices shift over time, if at all, in response to an SFL/ GBP based pedagogy?</b>	SFL/CDA  SFL/Register theory: field, tenor, mode  Genre Based Pedagogy	CDA using SFL of student texts/2 full SFL analyses on student work, 5 quick analyses on student work.  Qualitative case study	<b>Finding 4:</b> Students in my classroom used metalanguage to discuss the language resources necessary for academic literacy.	Fig. 9/9a: Kia lexical chain Fig.12: Named letter stages Fig. 27: genre analysis naming stages Fig. 30: T's genre analysis Fig. 34: Bossy language Fig. 35: Science language Fig. 37: Small but important words Fig. 38: Lexical chunking Fig. 44: Tally's description of science language as part of the explanation genre Figure 39a: Analysis of return letter from USDA Figure 40: Transcript of classroom lesson responding to USDA letter
			<b>Finding 5:</b> Students in my classroom renamed language systems, not surface features, aligning with Halliday's theory of language learning as "systemic and functional." They used these language systems to inform their writing practices.	<b><i>Bossy/Chit chat</i></b> Fig. 32: Transcript on bossy Fig. 33: elimination of pronouns Fig. 34: Transcript 2 on bossy Fig. 40: Critique of letter Fig. 48: Coda  <b><i>Genre/ordering:</i></b> Fig. 29 Fig. 30 Fig. 31 Fig. 40: Critique of letter <b><i>Science language:</i></b> Fig. 35 Fig. 40: Critique of letter Fig. 44: Science language in an explanation <b><i>Cohesion:</i></b> Fig 9: Kia's lexical chains Fig. 40: Critique of letter Fig. 37: Small but important words Fig. 38: Lexical chunking

## Discussion of Findings

### Research Question #1

*How did my instruction change over time, if at all, as I implemented an SFL based pedagogy to support academic literacy development in my classroom?*

In response to research question one, I concluded the following trends:

- *Using SFL to inform my instructional language goals supported a shift in my understanding on teaching academic language as a central part of content and writing instruction.*
- *Engaging with micro analysis of student texts shifted my ability to look at student texts dimensionally. I was able to see entry points beyond surface level features to support student writing.*

In doing a microtextual analysis of students' texts, I note in my memos written during my data reduction corpus a significant shift in my understanding of texts as hybridized and functionally arranged. As I was a participant in this research, I wrote about my shifts in conception of language as I began to see strengths students had when writing as I conducted a quick analysis, as well as entry points into language teaching and curricular unit design. I concluded that I began to look at texts not linearly, but with a functional lens. In one entry in my teacher-research journal in March, 2012 I note "*I do not remember how to even look at educational texts without thinking Field! Tenor! Cohesion!*" I am naming this shift in my conception of language as a finding. The opportunity to work closely with both text analysis, one-on-one with Kia and Tally and writing language based goals as part of my classroom lesson designs fundamentally changed how I choose texts, taught language and assessed student writing. This is still

true, three years after I collected and analyzed this data. I attribute this shift to having a theory of functional language.

As a result of my emergent understanding of SFL, I was also able to consider how teachers could efficiently use SFL as an analytic discourse tool. As discussed in Chapter Seven, it would not be practical for a teacher to do a full register and genre analysis on student work on a regular basis. Analyzing student work is incredibly time consuming. Further, the full SFL register analyses are more functional when there are questions guiding the analysis. For example, for a large scale research topic, I sought to ascertain and discuss whether any changes were evident after four months of SFL instruction which required a full analysis with the three register variables and a genre analysis. However, not all analyses need to be so elaborate for a teacher to learn to work within this framework. I maintain that having a theory of both language and learning made analyzing students' texts informative, even without a formal analysis. Instead, teachers with a working understanding of SFL and GBP can look for trends in student work that could be addressed as language goals in instruction. For example, with what I referenced as a "quick analysis" of Kia's and Tally's texts over the fall semester (see Chapter Seven), I was drawn to some of the issues with field development, genre and the lack of coherence, particularly in Kia's writing. A trinocular language system for analyzing texts contributed to how I wrote my instructional language goals based on these two patterns. Ascertaining these goals did not require a full analysis, but rather a theoretical understanding of language. In addition, I was able to look at my students' open responses and make functional decisions about the course of language mini-lessons

I would include while teaching the elements of fiction and short stories. Designing these mini lessons and corresponding language goals were all done without a full analysis.

Further, a deeper understanding of SFL unknowingly contributed to the evolution of a classroom metalanguage. At first, the evolving functional metalanguage was in response to how I understood SFL. However, as my students learned to analyze their own writing with the metalanguage, this practice ultimately saved me time as they had functional language resources to do so. Discussing language and texts functionally with students also helped them take more ownership of their writing. I noted students were increasingly engaged and working more independently than in my previous experiences teaching middle school writing when they had resources to discuss texts. Their facility with using the theory suggests students are also capable of basic levels of text analysis and developing a better understanding of text knowledge. For example, in all five of my classes, my students were very interested in their own lexical chains, finding them a useful for feedback on their drafts regarding whether or not they maintained ideas throughout the text, or if they focused on ideas in particular parts of their text the way they intended. Coupled with a student genre analysis of their final text, where stages are labeled and named and then assessed against the original road map, students became active agents in this aspect of text analysis as well as revision practices. This became a collaborative grading practice, where my students and I were cooperatively deciding what aspects of content (field), cohesion (mode) and audience (tenor) and text stages (genre) were important for their text. Having a shared metalanguage to use as part of my system of grading made rewriting rubrics functionally easier as well, saving me time. I suggest

these activities are a form of applicable discourse analysis, and one that precludes the full register analysis, even full SFL mastery. While a full analysis was resourceful for this research, there are other ways to use less involved text analyses that are efficient, resourceful, functional and collaborative.

### Research Question # 2

*How did my students' textual practices shift over time, if at all, in response to an SFL/GBP based pedagogy?*

In response to research question 2, I concluded the following trends:

- *Students in my classroom used metalanguage to discuss the language resources they determined necessary for their developing academic literacies.*
- *Students in my classroom renamed language systems, not surface features, aligning with Halliday's theory of language learning as "systemic and functional." They used these language systems to inform their writing practices.*

These two trends suggest that the metalanguage development was actually a tool of self regulation for students, in line with much of Vygotsy's work on language learning tools as contributors to higher mentation (Vygotsky, 1978). In addition, the development of this language represents language learning in a system, reflecting Halliday's position on language learning as a process of engagement in functional systems (Halliday, 1993; Wells, 1994). As such, I will discuss these two trends in terms of these corresponding theorists.

*Research question 2, trend 1: Students in my classroom used metalanguage to discuss the language resources they determined necessary for their developing academic literacies.*

My final data analysis suggests the student metalanguage that developed in my classroom was a creative manifestation of SFL that students augmented and manipulated

for their own needs as writers. Vygotsky (1978) explained this interaction with a metalanguage from observing the way children named and assigned labels to the difficult parts of task completion by both self-regulating with language and descriptive language resources to discuss and push their developmental processes. He suggests this kind of language acts as a mediating tool between learning, language and the learning activity, in that “speech not only accompanies practical activity but also plays a specific role in carrying it out...” (Vygotsky, 1978, p. 25). A shared and evolving student metalanguage is best explained as a sociological and psychological tool for students to develop self regulation necessary when engaging in the “learning to write” activity, with metalanguage as the tool to assist in this development towards internalization.

Determining the development and trajectory of the metalanguage was complex. Analyzing tapes during data reduction phases required extensive coding of the functional language students mentioned and the uptake thereof. From my content analysis, I conclude that discussing language began with classroom talk, controlled by me, attempting to disrupt the fixed stages of the open response. Students began by mimicking me as I attempted to explain some new dimensions of writing to them using macrocontextual factors, such as the CCSS benchmarks. We used common spoken genres to begin naming and renaming language, improv for story telling, and creative courtrooms to practice arguing. Students slowly began to name and discuss language, testing out language with me, and eventually, amongst themselves. Finally, we relied heavily on the lifeworlds that intersect in Northtown to determine how and where language and genre were tightly linked to the context of use and how to name them

functionally; how all jobs and positions in Northtown may use writing at work; how the government harbors responsibility for citizens and animals who have the right to seek attention when needed; and what language students need to interact with academic texts. All of these text/context relationships required metalanguage to describe and discuss with one another.<sup>19</sup>

Vygotsky (1978) explains the complexity of metalanguage as a language learning tool as one that mirrors the complexity of learning. In his work, he explained that teaching a new and complex task necessarily relies on both the known and shared language elements. He states that shared language and mimicry are both important in the early stages of learning (Vygotsky, 1978, p.8). He contributes this basis as significant in assisting students in developing motivation beyond proximal development. The learner (students) may engage in more motivational activities and gain trust to try something unknown when a familiar basis is established. Leontiev, a student of Vygotsky's, describes learning as building the tools to engage in an "activity" (Leontiev, 1978, Lantolf, 2001). Students will transition from mimicry when motive is present, or what he calls an object (Leontiev, 1978). Leontiev (1978) further states that when an object is situated as something a student wants to reach, more language will result. Therefore, the development of a classroom metalanguage that was in the students' control served as a response to their needs as learners. The language became an object that was motivating them; in particular, to be "bossy." This need of my students, to seek language to be "bossy," I argue was the singular most important shift in the metalanguage development;

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<sup>19</sup> Kia and Tally were really quite helpful in assisting me restructure and write out this aspect of my narrative based on their memories and experiences participating in the most salient and permanent aspects of our metalanguage.

students asking me if they could learn to be “bossy” and asking me for language lessons to support them. They were, at this point, motivated by the “object” of writing to the government. While there was mimicry and even a metalanguage in their open response writing at the start of the year, the lack of the motivational object made the fixed open response metalanguage meaningless to them. Lenotiev (1978) suggests that these factors [object+motivation] are the significant factors in learning [activity], underscoring the motivation trajectory to proximal development (Lenotiev, 1978).

My students’ metalanguage development mirrors how Halliday captures language learning and development as well; that language is the semiotic tool of work (Halliday, 1993, p. 91). Halliday suggests that even protolanguage, language used between child and caretaker is in a response to how a child is also learning language and that the protolinguistic systems support a child’s basic needs. A protolanguage evolves to give a child what they need to learn language and what they need to continue to make meaning. He states:

When children learn language, they are not simply engaging in one type of learning among many; rather, they are learning the foundations of learning itself. The distinctive characteristic of human learning is that it is a process of making meaning—a semiotic process; and the prototypical form of human semiotics is language (Halliday, 1993, p. 93).

Halliday essentially argues throughout his theories that humans develop language because they are creatures who need to mean; language, he concludes, is our primary resource for making meaning.

Both Halliday and Vygotsky suggest this kind ontogenetic activity is indeed complex, and that language activity of this level relies on a combination of motivation,



actions and conditions set that allow for these levels of activity (Lantolf, 2001; Wells, 1994). With this perspective, learning is described as the way a student gains control over social and cognitive activities (activity theory, see Leontiv, 1978; Lantolf, 2001), and not as a response to goals others pre-set. This is an important implication when discussing pedagogy to support emergent writers. Academic language learning is clearly more complex than standardized writing and TSG instruction can support.

While my instructional goals may have been to teach students to develop an academic register, even allowing metalanguage to support this, there is no indication in any of my data that students were consciously trying to learn to control an academic register and using a metalanguage to do so. This was despite the procedure at the onset of class (per school policy) that I outlined my lesson objectives, explaining to students what they needed to “master” by the end of class. Rather, I conclude my students were simply engaged in their language “activity” (Leontiv, 1978) and the conditions and motivation were in place for them to do work with language. Vygotsky concludes “individuals move through stages in which they are controlled first by the objects in their environment (in this case, the teacher), and then over the other (in this case, metalanguage) and finally, they approach self regulation with determination and the use of these self mediated tools” (Vygotsky, 1978, p. 52). At various levels of this stages of development, my students’ metalanguage mirrors this suggested learning trajectory.

*Research question 2, finding 2: Students in my classroom renamed language systems, not surface features, aligning with Halliday’s theory of language learning as “systemic and functional.” They used these language systems to inform their writing practices.*

I began this chapter discussing the rather contentious history on TSG and behaviorist grammar instruction in the United States context. While contesting traditional grammar is not a focal point of this research, in writing my findings, I find relevancy in the long standing challenge against sentence level and word level instruction as resourceful for helping students learn to write. At no point in my research or data analysis did my students name or rename individual words with metalanguage. As I analyzed their language learning process, students were more often naming the relationship between text and context, rarely defaulting to any previous grammar instruction. These standardized instructional practices were never difficult for me to disrupt either. Willett (1995) addresses the importance of teachers looking at language learning this way; not only assessing student language learning as an ending performance, but that teachers should observe and respond to the process in which students interact with and respond to the language instruction. She specifically highlights this level of observation as an important part of language instruction and language research, stating that, “it is in the process of finding common ground and incorporating the language, skills, and perspectives constituting the activity that newcomers stretch their concepts and language” (p. 475). Therefore, it was through observations of their learning process that I began to note the manner in which instead of renaming surface features, my students were discussing and naming language systems.

A language system is defined by Halliday as the lexical and grammatical resources used together in a text, contributing to the way a text achieves a purpose (Halliday, 2004). There are some language systems student learn to use with facility

before formal schooling starts; systems of mood found in the syntax and systems of tense which locate the text in time. However, other language systems are less familiar. For example, systems of appraisal are culturally sensitive boundaries that dictate the appropriateness of attaching praise. Using appraisal incorrectly can result in varying levels of credibility when used in contrast to expected cultural norms. Systems of syntactic mood invite politeness; sometimes, language users use questions not to elicit information, but rather to be polite in commanding someone to do something for them (e.g. “Would you mind opening this door for me?” rather than “My hands are full, open the door”). Systemic functional linguistics is actually named for this concept; *systems that function in language*.

As stated, in terms of the metalanguage my students developed, they developed and renamed language systems. Students named and discussed previously unknown systems in their academic texts, specifically those of transitivity, cohesion and audience. The terms “bossy and chit chat” language students are a system of audience most associated with the register variable tenor, then field and then cohesion; audiences required writers who could draw upon field choices and lexical chains to prove credibility. Authors who were able to control systems of field choices and maintain lexical chains were judged by my students as experts. Systems of science language were discussed as systems that support and create new information. Lexical chains and lexical “chunks” were described as maintaining resources across a text and were critiqued when omitted.

They also interacted with the systems in ways that they needed to function; on behalf of themselves and the audience, they needed to “sound bossy” and “not use chit chat.” To make their points clear, they needed to “make chunks” or “chain the idea” and use “small but important words,” reflective of what they prioritized in expert texts and writing demands. To explain systems in scientific texts, Kia stated on behalf of her classmates (see Figure 31) that science language includes “new facts to explain ....that is what science language does,” linking a system of content to transitivity to text development.

Halliday concludes that using language in this way explains “the relationship between systems and the actual text” (Halliday, 2004, p. 27). In fact, Halliday (1993) critiques language learning which does not teach language as functional and interlocking systems of choices. He states “[teachers] do not have to pull language apart to understand it...it does not function in parts, it functions as a whole” (Halliday, 1993). Halliday’s explanation goes on to demonstrate that even young children learn language in systems. To function in response to context, young children learn systems of tense, question/answer exchanges, systems of polarity and modality, resources of cross text coherence and grammatical systems used with family vs. unknown as well as with authority vs. peer (Halliday, 1993). Therefore, he posits language learning at all levels should mimic this. While my instructional language mini lessons before the WNS unit offered a variety mini lessons on what Halliday calls “rank-level” language instruction: words, word groups, clauses, clause-complexes and genre stages, the manner in which my students renamed language systems under SFL instruction across these ranks speaks to a significant shift in

their understanding of academic language as a unique set of functional language systems to link the context of culture to the context of situation.

Schleppegrell (2013), echoing Halliday's rationale for systemic focus in language instruction, states that "language learners use language systems to build meanings, but through their language use they also come to understand the potential of the systems" (p. 155). My students substantiate this, as the features they discussed instantiate the metafunctions: "small but important words" reflected cohesion, as described by the textual metafunction, as did "lexical chains" and "lexical chunking." "Ordering" and "bossy versus chit chat" were contributing to systems reflecting the audience of engagement, similar to theoretical descriptions of the interpersonal metafunction. These systems drew on many aspects of language, none of which were insular or isolated.

An implication of this work then is that academic language may be best taught as systems of language choices linked to text purpose. I will discuss this further in the implications section. However, Hudson (2004) concludes that "this view of language as a system is perhaps the single most important idea that linguistics has to offer schools..." (Hudson, 2004, p. 113). In addition, when discussing what constitutes actual language learning for students, Willett (1995) explains that systems of language include more in classroom settings than just basic language learning. She states

Learners acquire more than linguistic rules. They also appropriate identities, social relations, and ideologies. It may be that these identities, relations, and ideologies inhibit or facilitate the development of interactional routines from which learners acquire input for psycholinguistic processing (p. 475).

It is with a discussion of the value of teaching the systems of language that I turn to other studies which echo how students have responded to language learning in similar ways.

#### Connection to Other Studies

There is a growing body of work that substantiates and aligns with my findings. Schleppegrell's large scale teacher professional development study, discussed in Chapter Three as the California History Project (CHP), describes multiple examples in shifts in teachers' conception of language which were similar to my own experience. Teachers described in post research interviews their ability to see texts differently with a functional theory of language even after learning just some of the theory. In multiple examples in her studies, teachers discuss shifts in their instructional designs after learning relevant aspects of SFL. For example, history teachers reported to using transitivity and cohesive devices to teach language markers in historical discourse where the texts shift or change in response to the content. Their instruction focused students on the language markers as boundaries that allowed the texts to organize around cause/effect text construction, text patterns central to constructing and developing historical discourse. Teachers involved in CHP also discussed the construction of self/other in historical texts; that language choices in historical discourse are carefully selected, especially when naming the some of the most destructive people in history with nonhuman participants. Bringing awareness to the language of non human participants as part of "safer" historical discourse choices was discussed by multiple teachers in this project as significant for any student or instructor of history to learn to question the presentation of the past (For more on the California History Project, See: Achugar & Schleppegrell, 2005; Achugar, Schleppegrell & Oteíza,

2007; de Oliveira, 2010; Schleppegrell & Achugar, 2003; Schleppegrell, Achugar, & Oteíza, 2004; Schleppegrell & de Oliveira, 2006; Schleppegrell, Greer & Taylor, 2008).

Gebhard, Chen, Graham and Gunawan (2013) also found similar trends with shifts in teachers' conception of grammar when working with teachers from various teaching demographics. In this research, teachers with different language backgrounds, in different language teaching situations, with different age groups all report to some shifts in how they understand grammar and genre. Their lesson designs and implementation of language instruction were more functional as a result. Focal teachers described using more functional language learning goals in their teaching as a response to how they understood SFL and GBP after participating in graduate coursework focused on genre and register theory.

Various researchers in the field have also worked with elementary school students using an SFL metalanguage to discuss the text/context linguistic affordances relevant to the language used to construct school disciplines. Williams (1998, 2000, 2005) worked with elementary school students who discussed and named transitive elements in children's literature as both contributing to their reading comprehension practices (e.g. tracking participants as they evolved across clauses) and their ability to discuss ideological elements of texts (e.g. gender). Gebhard, Chen and Britton (2014) also found ELL students in an urban elementary school actively renamed and recast systems in informational texts units by naming and discussing them with both their teacher and peers. Of note, in this work, students also renamed language functionally, such as

“chunky participants” to describe longer nominal groups that function to support the overarching teaching purpose in scientific and historical writing.

MacDonald (2006) and Marshall (2006) both found when working with high school literature students that students were able to use transitivity to discuss the inter-functionality of literature. Their findings span from how students discussed the transitive circumstance as supportive of character development to how in student writing, omissions in field development resulted in disruptions in cohesion. In these instances, such as the language my students evolved, the metalanguage was critical and supported students in expanding semiotic resources to support them and their academic literacy and also to challenge the texts presented to them at school.

The New London Group’s theoretical description of a call for metalanguage in classroom Design substantiates the relevance of a critical metalanguage used across this research and in these various ways. They state:

The primary purpose of the metalanguage should be to identify and explain differences between texts, and relate these to the contexts of culture and situation in which they seem to work. The metalanguage is not to impose rules, to set standards of correctness, or to privilege certain discourses in order to "empower" students (New London Group, 1996, p. 77).

This research exemplifies metalanguage as a semiotic and learning resource that echoes their call for a complex way to discuss how texts work. It also collectively moves the field into the importance of bringing more critical language instruction into disciplinary literacy. The implications of this work hinge on both allowing students to co-construct their learning goals, and how language systems to should addressed in teacher education and policy as salient in academic language instruction.



## Implications

There are implications of this research focused on student learning and language instruction, the field of teacher education and policy.

### Implications for Student Learning and Language Instruction

Both in my research and the relevant research addressed in this dissertation, students used a functional metalanguage in instruction to talk about the difficult language systems that construct knowledge presented to them throughout their schooling. In my research, when students were both provided language and allowed to continue to develop the metalanguage functionally, students were able to articulate how academic language constructs content, self/other dynamics and the modes of discourse. This metalanguage both includes and engages them in the discourses that construct the academic and professional world.

This response to a functional metalanguage also challenges traditional school grammar and the debates around it. Four months of language teaching focused on language choices as part of functional language systems proved more meaningful to my students than the years of language instruction they had on surface features (e.g. open response writing; the parts of speech). Halliday (1994) argues that language learning happens when students are presented with features that comprise the intersecting language systems, that texts function as a whole and never in fixed parts. Hasan (1989) furthers that language systems present a series of interlocking systems of which are tightly connected language choices which are more in line with how students already know how to use language. As the grammar war debates continuously yield more of a

debate than a solution, this may indicate that a paradigm shift that supports teaching language systems may better serve teachers and student learning.

This work also implicates text-based instruction. Students need instruction on how various text-types function so that when they are told to write for a purpose and an audience, there are relevant language and text features that they hinge those concepts on. This instruction should position students to make critical decisions about the linguistic choices within a system of choices, choices that are best described as field, tenor and mode variables. Unfortunately, CCSS reduces text types to three exacted genres: explanation, narrative, argument and renames academic language mostly through latinate categories of parts of speech. This inclusion of functional genres and language in CCSS seemed as though it could be a critical move, but the structural nature of how they are included begs consideration. Students in this study responded to texts as usually hybridized, with language choices responsive to hybridity. Rather than focusing students on narrow types of texts and language, as CCSS has done, this research suggests students benefit from instruction that encourages the recognition and naming of generic hybridity and the language features which support various types of text development.

While there is critique that the theory is too hard for students and teachers to learn, multiple studies suggest otherwise (Gebhard et al, 2014; Schleppegrell, Greer & Taylor, 2008; Williams, 1998, 2000, 2005). In this study, the students in my class were capable of using features of field, tenor, mode and genre to discuss texts, name systems present in school and professional texts, make decisions about their texts and critique texts. Part of learning to about language systems was allowing a functional metalanguage

to develop. In this work, metalanguage was shared in its development and in turn, used for discourse analysis, both of which I note as key aspect of students' processes of learning to control academic language. Students were also active in the creation of the language learning tool necessary to support academic language use, at times asking me for more language resources to complement their growing metalanguage. That teachers should allow co-constructions in language and literacy learning is a significant implication of not only this work but much of the work on using sociocultural theory to underscore teaching and learning. A theory of size, such as SFL, is not only manageable, but necessary to support students in the various aspects of language learning.

#### Implications for the Field of Teacher Education

Teacher professional development must also begin to address the policy changes mandating teachers use academic language in instruction. For example, current reforms in teacher professional development in Massachusetts include ReTELL and CCSS, state and federal documents respectively, which suddenly require teachers to include language instruction. Graduate schools of education require teachers to complete the Teacher Performance Assessment (TPA), an evaluation tool which measures pre-service teachers progress towards teaching, including a significant section on teaching and assessing students on disciplinary language. All require teachers implement language instruction, yet do not anchor language instruction with a theory of language and learning.

This shift also implicates necessary changes in teacher preparation. Some schools of education are beginning to respond with mandatory courses for teachers on language (Gebhard & Willett, 2008; Schleppegrell, 2007), but may still do not (Moje, 2008).

States, such as Massachusetts, now must include academic language pedagogy as mandatory in both pre-service and inservice teacher education in response to the US Department of Justice, who cited persistent achievement gaps between ELLs and L1 English students as a violation of civil rights. The law named *Rethinking Equity and Teaching ELLs* (ReTELL) determined that “the State had failed to take appropriate action to overcome ELL’s language barriers by not defining and mandating the basic preparation and language training that teachers and other educators must have to provide [English instruction]” (Landman, 2012, slide 10). However, providing pre-service teachers with coursework on language theory should be driven by data, not laws. These courses set preservice teachers up long term to make more critical pedagogical choices with responsive language goal setting and curriculum for all students, both L1 and L2. Without a robust theory of language, teachers may focus on what is wrong with student language and writing or default to behaviorist grammar, vocabulary lessons and formulaic writing instruction as I did and reflected in my teacher-research journal. Formulas and rubrics right now are popular for teachers as they save time for content area teachers, who often face grading over 100 pieces of writing per week. However, with the ability to assess student writing with resources of field, tenor and mode, even just by reading and taking notes on student texts as discussion points about the students’ writing processes rather than grading every piece of writing based on a pre-set rubric, teachers can make more functional decisions about what the students in their class need support on at a given time. My experiences with quick analyses substantiate this, as I was able to provide my students with relevant and responsive language mini lessons. Therefore, more schools of

education need to commit to including coursework on functional theories of language for any teacher responsible for teaching content-area disciplines, espousing this theory as both functional and efficient for lesson design. Presence coursework should also focus on disciplinary knowledge as informed by language discourses and subsequent language systems. These systems are complex to learn, but they are also critical for including students in schooling in ways that are equitable. With highly sustained high-quality teacher education, teachers will be able to implement and draw upon this theory.

### Implications for Policy

If teachers are going to be asked to follow a *de facto* set of national standards which include academic language standards and designing a curriculum with language standards, this change will require a policy shift on what requires language. Policy makers need to commit to supporting teachers through this shift in the same way that schools of education need to. Teachers will need significant support, as most teachers have not participated in schooling where language instruction was positioned this way. As I cased the joint (Merriam, 2009) and observed teachers in Northtown's response to suddenly teaching language, it was clear that teachers will not just suddenly include "language learning objectives" into instruction without sustained support as to how to make this shift in lesson design.

Further, policy makers are working towards a national testing systems, the PARCC exams. PARCC exams have significant shifts in student assessment, in particular, a refocus on testing students on the literacies germane to the content area subjects. As states approach full implementation of the PARCC test, which will focus on the

integration of texts on a common theme and asking students to write responses based on their reading of various text types, schools and teachers will continue to need support on defining academic language as well as hybridized text types functionally for teachers so teachers can include these integrated literacies into instruction. This will require money to support both in service professional development, as well as graduate coursework to support teachers through these various political reforms which require they learn to include sophisticated language instruction into classroom teaching.

### Directions for the Field

In both the cited research that aligns with my findings, as well as many of the studies I reviewed in Chapter Three, there are implications for the field of language education. In preparing a review of the literature for this dissertation, much of the research I found on language education, especially when focused on classrooms of mostly L1 English speaking students (such as mine) were debates on whether or not to teach the parts of speech rather than trials of teaching language with functional writing tools. Grammar and language education were also discussed as “medicinal” for ELL students; studies that narrowly targeted ELL students *acquisition* of English rather than language *learning*. Yet, teachers in CCSS schools, in all the disciplines are now to include language goals. While I have been told in my context that I must do this, I have not had any opportunities offered to me within the context of my school’s professional development offerings that address this. Teachers that must operate in grammar instruction that neither supports writing nor assists students in learning the language of

schooling will benefit from professional development and graduate coursework that includes a sociocultural and functional theoretical framework on language.

Teacher education and professional development must also respond with providing teachers a theory of language to use to address and instruction disciplinary language instruction. Consider how Ms. Bird responded when the school district's curriculum leaders told her she must suddenly teach language. Her premonition was to simply ignore this mandate. However, teaching scientific language and literacy is included in her curriculum, will be a part of the science PARCC tests and included in her teacher evaluation. Without a more functional theory of language, content area teachers, such as Ms. Bird, are going to default to teaching vocabulary (Hudson, 2004) or at the very least, continue to struggle with designing curriculum that includes language learning goals. Yet, in my focused qualitative case study focused on how students interacted with language instruction, my students did not gravitate to vocabulary instruction or parts of speech grammar, nor did they ever reference it as useful. Instead, they made sense of academic language through the systems that constructed disciplinary and published texts, as well as relying on systems to plan, discuss and review their own writing. The field of teacher education will benefit from including coursework for both preservice and inservice teachers that highlights academic language as comprised of functional systems, as well as semiotic and metalinguistic tools resourceful for students and teachers.

#### Coda: Northtown, Kia and Tally

As I conclude the final write up of this dissertation, I am in my fourth school year teaching seventh grade English in Northtown. It was difficult to write parts of this

dissertation without commenting on how much I have evolved in my understanding of teaching SFL. SFL is not a language pedagogy that can be assessed on how well one initially understands the teaching of it; the more I teach with SFL, the more engrained it becomes into my practices of text selection, rubric design, curricular units with language goals and the way I speak to my students about the metalinguistic attributes of academic literacy. I have also shifted in how I understand genre teaching; rather than teach genre as a separate layer, I teach it as a language feature. This is a shift away from my experiences in 2011-2012, when I was trying to teach it as a layer informing language. I still understand genres as consisting of a series of functional stages or moves that are functional and fluid, but I teach them as tied to the language usage of each paragraph and the text as a whole. While I do use roadmaps, I found that more complex genres are best understood after something is written—seeing what stages are in a student’s initial texts, and how these drafts reflect what students know, and what they need to move to a second draft.

Northtown remains a level three school system. If this ranking carries over for one more year, Northtown will become a level four school system. There is evident concern around this within the administration. Changes in teaching assignments, more interventional educational programs, new data analysis positions being created, and professional development on all district programs continue to emerge as administrators scramble to fix this issue before the start of the 2015-2016 school year. However, the main focus is now on raising math scores, not English. With less surveillance, I have been able to advance my curriculum in areas of language instruction without too much



question or critique. Since the study, my annual test scores have demonstrated students making average to slightly above average gains. Last school year's (2013-2104) all but four of my students were proficient or higher, a milestone I partially attribute to using SFL to inform my understanding of academic literacy development, language goals and language learning.

Each year since the WNS study, I have also designed an informational text unit that included building the field with text deconstruction on a high interest topic, followed by writing an advocacy letter on this topic. We wrote letters to the Department of Veterans' Affairs (VA) on facilitating health services for veterans after spending a few weeks learning about the VA, and the past three US military conflicts (Gulf War, Iraq, Afghanistan). The following year, we wrote to Congress again on behalf of the dying honey bees needed to pollinate crops and sustain farming. I used various text selections on the history of the bees to examine theories as to why this mysterious decline of bees is seemingly unstoppable. Both of these units were based on what I learned about teaching language instruction when I taught about bats. I often use worksheets from the bat unit as an introduction to teaching informational texts, on how participants/processes/ circumstances come together to help readers learn more about topics, and ways to use these grammatical systems of teaching in students' own writing. This school year (2014-2015), we will write letters to the state government advocating for Massachusetts to implement stricter laws on bottles of water and reward those who use other reusable materials. Understanding how to design a curricular unit with language goals has been a

design I have repeated each year, and will continue to repeat given the results of this study.

Kia and Tally are now in the 10th grade. I remain in touch with both of them and had a chance to meet with them in August 2014. They were surprised I was still working on this paper! They both remembered feeling important to be the class reporters on bats. Kia said she still makes roadmaps and considers how to sound bossy depending on what she is writing. Tally said she taught her eighth grade English teacher lexical chains and was surprised her teacher did not know about them!

Neither student now attends Northtown High School. Tally has moved twice since the seventh grade and now attends a vocational high school outside of a major city in the Northeast near her dad's house, but her mom still lives in Northtown which has allowed me to visit with her in my final phases of research. At her high school, she takes a full academic course load and also takes classes on set design, sound systems and lighting for theatre productions and web-design. She stated two reasons that led to her decision to go there. She felt it was a better option than the local high school she would have attended and she enjoyed her tour of the school, where she learned she had a choice in her studies and guaranteed vocational options upon graduation.

Kia remains local, still living in Northtown, but attending a charter school. She struggled with English class a great deal in eighth grade at Northtown. She states she was encouraged to look at charter schools or private high schools with scholarships by the guidance department. Both would provide her smaller classes, which may not have been an option for her at Northtown High School. She likes her charter school, and says she

feels she made the right choice. At her charter school, she is in a Puerto Rican dance group that performs locally, as well as in the chorus. She is also studying Spanish which she told me is “a lot harder than you would think” (8/2014).

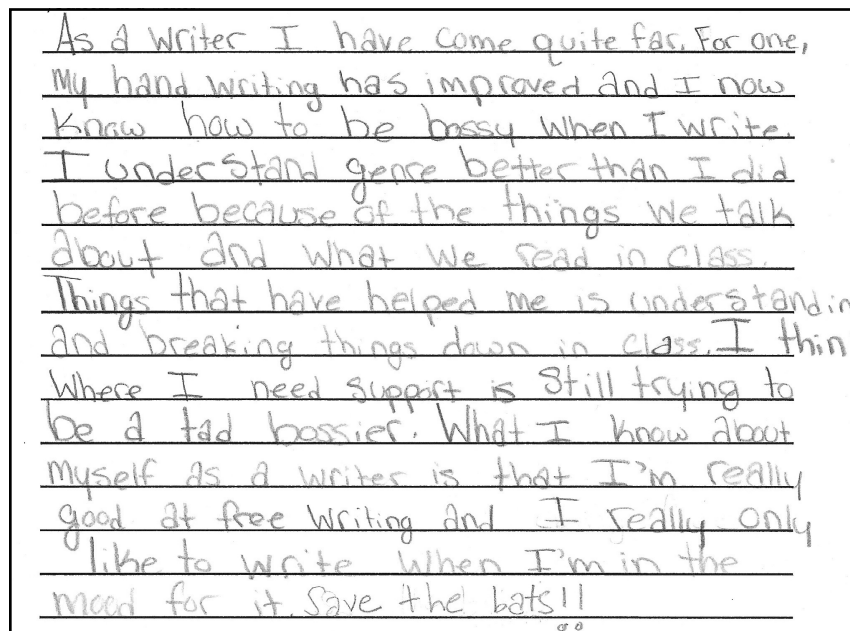
This upcoming school year, they will both take a state test that determines their graduation from a public high school in our state. They will be assessed on reading and writing, algebra II and geometry, science and history. All four of these tests have significant writing portions on them which account for at least some of the test’s overall score. The state administers these tests in tenth grade so that students who fail have two more years of high school to focus on passing tests. There are other benefits also; certain scores guarantee students tuition waivers at some of the state universities. Also, high schools will receive funding to aide students if many sophomores are not passing; state funds are set aside for extra teaching or materials to help high schools with low passing rates. While neither of them took state tests in the ninth grade, both of them received proficient scores on their seventh and eighth grade tests. Tally scored in the higher end of proficient in seventh grade and mid range in eighth grade. Kia scored low proficient in both years, and has also continued to qualify for Title 1 reading services at both Northtown Middle School (grade 8) and in her charter school (grade 9 and grade 10). She states the classes do not really help her except that they are a chance for her to just sit and read.

#### Final Comment

At the close of the 2011-2012 school year, I asked my students to reflect on three questions. They could answer some of them, all of them, and in no particular order.

1. How have you grown as a writer?
2. How do you now understand genre/register? What has helped you?
3. Where do you still need more support?

Most students did not take the assignment seriously, some did not even submit it. I found Tally's response significant in comparison to the way she described her writing and herself at the start of the paper. At the time, she stated she guessed she was an OK writer, and she insisted that writing at school was synonymous with a paragraph with a topic sentence, three reasons and a clincher. At the close of the year, Tally explains:



As a writer I have come quite far. For one, my hand writing has improved and I now know how to be bossy when I write. I understand genre better than I did before because of the things we talk about and what we read in class. Things that have helped me is understanding and breaking things down in class. I think where I need support is still trying to be a tad bossier. What I know about myself as a writer is that I'm really good at free writing and I really only like to write when I'm in the mood for it. Save the bats!!

Figure 48: Tally's Assessment of Herself as a Writer

This level of reflectivity and efficacy speaks to shifts in her perceptions of writing and of herself as a student.

## APPENDICES

APPENDIX A

RESEARCH AND CLASSROOM MATERIALS

Appendix 1. Informed consent (approved)



University of Massachusetts Amherst  
School of Education  
117 Furcolo Hall  
813 North Pleasant Street  
Amherst, MA 01003-9308

Department of Teacher Education  
and Curriculum Studies

*Student and Parent Consent Form*

Subject (name of student): \_\_\_\_\_

Teacher researcher: Holly Graham

Project Sponsor: Dr. Margaret Gebhard, University of Massachusetts

Title of Project: Grammatical metalanguage in a middle school classroom: Working towards the development of an academic vocabulary.

By signing this consent form you,  
(parent or guardian name): \_\_\_\_\_ indicate that you  
willingly agree for your son, daughter or ward (student's name)  
\_\_\_\_\_ to participate in this project. The purpose  
of this project is to help teachers learn more about how students learn to read and write in  
academic ways in schools.

Your child's class has been selected to participate in this project because he or she is in a  
class of a teacher conducting research at the University of Massachusetts under the  
direction of Dr. Meg Gebhard. This teacher, Holly Graham, is conducting this research as  
a way of reflection on her classroom practices, and learning from these insights will  
facilitate entry into a larger dialogue about the teaching of writing.

As part of this project, Holly Graham may videotape classroom interactions, and then she  
will analyze the videotape as part of research. She will also collect samples of student  
writing and may interview students about how they read and write. Graduate students  
from UMASS may also be present observing Ms. Graham's teaching, operating the video  
camera or viewing student work with student names removed.

There are no specific physical risks or discomforts associated with participation in this project, and Holly Graham will make every effort not to disrupt the flow of everyday activities in her class. However, some students and families find the presence of a videocamera uncomfortable. In the event that you or your child find participating in this project is uncomfortable, you may decline to participate at any time.

Likewise, there are no specific benefits associated with participating in this project. However, some students and families find the extra attention paid to their experience in school leads to a better understanding of their needs as learners.

In addition, there are no costs associated with participating in this project and students and their families will not receive any compensation.

The teacher will not deliberately interfere or disrupt activities. Therefore, students who do not participate in the project will not suffer any consequences to their daily school routines.

This project will be conducted during the 2011-2012 academic year.

Information produced by this project will be confidential and private. Videotapes, samples of student work, and other documents will be kept in a secure space at the University of Massachusetts.

Students' real names and other identifiers will be removed from their work and pseudonyms of "fake names" will be used to project confidentiality.

If student information is used for publication in academic literature or for teaching purposes, no real names will be used. However, an image of your son or daughter may be recognizable if used for presentation of videotaped or photographed classroom events. These images will be used only for educational purpose (ie: teacher training and presentation of research findings to other researchers, dissertation committee presentation), and additional consent with the image will be sent home for guardian review before pursuit of presentation information occurs.

You are under no obligation to participate in this project. You may withdraw your participation at any time without prejudice or incident.

Should you have any questions about your participation, you may call or email Holly Graham at John F. Kennedy Middle School.

[Hgraham@northampton-k12.us](mailto:Hgraham@northampton-k12.us)

[Hgraham@educ.umass.edu](mailto:Hgraham@educ.umass.edu)

413.587.1489 x7202



If you would like to discuss your rights as a participant in this project, or wish to speak with someone not directly involved in the project, you may contact *Margaret Burggren*, Human Subjects Coordinator at [burggren@ora.umass.edu](mailto:burggren@ora.umass.edu). 413.545.3428.

Consent:

When signing this form, I am agreeing to voluntarily enter this project. I understand that by signing this document, I do not waive any of my legal rights. I have had a chance to read this consent form, and it was explained to me in a language which I use and understand. I have had the opportunity to ask questions and have received satisfactory answers. A copy of this signed informed consent form has been given to me.

\_\_\_\_\_  
\_\_\_\_\_

Student name.....  
.....  
.....Parent/Guardian name

\_\_\_\_\_  
\_\_\_\_\_

Student signature.....  
.....  
.....Date

\_\_\_\_\_  
\_\_\_\_\_

Parent signature.....  
.....  
.....Date

## Appendix 2: Grade 7 CCSS Benchmarks

### Appendix 2a: Writing Benchmarks

#### **Text Types and Purposes:**

##### **1: ARGUMENTS**

CCSS.ELA-LITERACY.W.7.1

Write arguments to support claims with clear reasons and relevant evidence.

CCSS.ELA-LITERACY.W.7.1.A

Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.

CCSS.ELA-LITERACY.W.7.1.B

Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.

CCSS.ELA-LITERACY.W.7.1.C

Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.

CCSS.ELA-LITERACY.W.7.1.D

Establish and maintain a formal style.

CCSS.ELA-LITERACY.W.7.1.E

Provide a concluding statement or section that follows from and supports the argument presented.

##### **2. EXPLANATIONS**

CCSS.ELA-LITERACY.W.7.2

Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CCSS.ELA-LITERACY.W.7.2.A

Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.7.2.B

Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

CCSS.ELA-LITERACY.W.7.2.C

Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.

CCSS.ELA-LITERACY.W.7.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.

CCSS.ELA-LITERACY.W.7.2.E

Establish and maintain a formal style.

CCSS.ELA-LITERACY.W.7.2.F

Provide a concluding statement or section that follows from and supports the information or explanation presented.

### **3. NARRATIVES**

CCSS.ELA-LITERACY.W.7.3

Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

CCSS.ELA-LITERACY.W.7.3.A

Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.

CCSS.ELA-LITERACY.W.7.3.B

Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.

CCSS.ELA-LITERACY.W.7.3.C

Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.

CCSS.ELA-LITERACY.W.7.3.D

Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

CCSS.ELA-LITERACY.W.7.3.E

Provide a conclusion that follows from and reflects on the narrated experiences or events.  
Production and Distribution of Writing:

### **4. WRITING BENCHMARK GOALS:**

CCSS.ELA-LITERACY.W.7.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

CCSS.ELA-LITERACY.W.7.5

With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 7 [here](#).)

CCSS.ELA-LITERACY.W.7.6

Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

Research to Build and Present Knowledge:

CCSS.ELA-LITERACY.W.7.7

Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

CCSS.ELA-LITERACY.W.7.8

Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CCSS.ELA-LITERACY.W.7.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

CCSS.ELA-LITERACY.W.7.9.A

Apply *grade 7 Reading standards* to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").

CCSS.ELA-LITERACY.W.7.9.B

Apply *grade 7 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").

Range of Writing:

CCSS.ELA-LITERACY.W.7.10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

## Appendix 2b: CCSS READING/ Informational Texts

### **Key Ideas and Details:**

#### CCSS.ELA-LITERACY.RI.7.1

Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

#### CCSS.ELA-LITERACY.RI.7.2

Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.

#### CCSS.ELA-LITERACY.RI.7.3

Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

Craft and Structure:

#### CCSS.ELA-LITERACY.RI.7.4

Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.

#### CCSS.ELA-LITERACY.RI.7.5

Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.

#### CCSS.ELA-LITERACY.RI.7.6

Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.

Integration of Knowledge and Ideas:

#### CCSS.ELA-LITERACY.RI.7.7

Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).

#### CCSS.ELA-LITERACY.RI.7.8

Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.

CCSS.ELA-LITERACY.RI.7.9

Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.

Range of Reading and Level of Text Complexity:

CCSS.ELA-LITERACY.RI.7.10

By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

## Appendix 2c: Academic Language Benchmarks

### **Knowledge of Language:**

CCSS.ELA-LITERACY.L.7.3

Use knowledge of language and its conventions when writing, speaking, reading, or listening.

CCSS.ELA-LITERACY.L.7.3.A

Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.\*

Vocabulary Acquisition and Use:

CCSS.ELA-LITERACY.L.7.4

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies.

CCSS.ELA-LITERACY.L.7.4.A

Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.

CCSS.ELA-LITERACY.L.7.4.B

Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent*, *bellicose*, *rebel*).

CCSS.ELA-LITERACY.L.7.4.C

Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.

CCSS.ELA-LITERACY.L.7.4.D

Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

CCSS.ELA-LITERACY.L.7.5

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.



CCSS.ELA-LITERACY.L.7.5.A

Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.

CCSS.ELA-LITERACY.L.7.5.B

Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.

CCSS.ELA-LITERACY.L.7.5.C

Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *refined*, *respectful*, *polite*, *diplomatic*, *condescending*).

CCSS.ELA-LITERACY.L.7.6

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Worksheet #1: Learning as MUCH as we can about BATS and informational texts!!!!

## Article 1 of 5

### Hibernating bats

The US Fish and Wildlife Service

Directions: Read this article as a class, and let's label the genre "stages"

What is happening in this stage? *Topic*

From late summer into fall, many North American bats prepare for the long winter ahead, storing the fat reserves they will need to last until spring. In most places, winter means a shortage of food for insectivorous animals. Facing a choice of migrating to a warmer climate and remaining active, or going into hibernation, most bats in the northernmost and mid-latitudes choose hibernation. Some begin to travel to hibernation sites as early as September, while others migrate south to warmer climates.

What is happening in this stage? *fact on science*

Hibernating bats typically require relatively stable temperatures between 32 F and 49 F. In contrast, summer nursery colonies need temperatures of close to 60 F or more, preferably 70 F or above to successfully rear young. Cave temperatures generally approximate mean annual surface temperatures, which in mid-latitudes of North America range between 50 F and 60 F. Except in the northern United States and Canada, most North American caves are too warm to permit bats to hibernate in them. And except in the South, most caves are too cold for rearing young, explaining why cave-dwelling bats used less than 5% of caves in my study area at any time of year.

What is happening in this stage? *fact on food storage*

Bats are among the few true hibernators. The winter sleep of animals such as bears is often mistaken for hibernation, but it lacks the marked metabolic and physiological shutdown of a true hibernator. The breathing of a hibernating bat is imperceptible, and its body cold to touch. Its heartbeat drops from roughly 400 beats per minute, when awake, to about 25 in hibernation, and its body temperature drops to within a few tenths of one degree of the surrounding cave.

Even in hibernation, a bat must periodically arouse to drink or urinate, or sometimes to find a cooler or warmer spot within the cave as temperatures fluctuate. Moisture from the cave walls, or the condensation on their fur, provides drinking water. A little brown bat (Myotis lucifugus), for example, may arouse at intervals of only 12 to 19 days, but also may hibernate uninterrupted for as long as 83 days, depending on temperature and other conditions. As the winter wears on, the fat a bat has stored during fall is slowly metabolized. These limited reserves must last it anywhere from five to eight months.

The amount of fat stored often depends on how far a bat must migrate--the longer the journey, the more energy required. Gray bats, with lean body weights of only about 8 grams, gain up to 8.6 grams of fat before their fall migration from Florida to northern Alabama and Tennessee. In contrast, gray bats that migrate less than 50 miles to reach the same hibernation caves store only 5.4 grams or less.

## ARTICLE #2: Class notes

### **The secret life of bats**

By Phil Richardson

#### **Mastery Objective:**

What are the genre stages of this "explanation"?

How do they compare to the genre stages to other *explanation* texts?

Stage: Intro to topic

#### **Breeding and feeding**

In temperate areas, bats mate during the autumn or winter. Females seek out males, some of which are known to give out special calls to attract females to mate with them. Some species also probably emit scents, too, for the same purpose: these may be associated with special tufts of hair on the face, shoulders or other parts of the body.



Stage: General

#### **Mating calls**

Male bats give out special calls to let the females know where they are, and possibly to warn off other males. Some do this from a prominent roosting place in a tree or on the side of a building. Others fly up and down the same route, calling as they fly. The calls of microbats are often low-pitched, almost down to the range of human hearing. This means that the sound will travel further, so advertising the bat to a wider audience. Any female passing may be attracted and pay the male a visit.

Stage: Specifics

The noisiest known bats are the males of the hammer-headed fruit bat, *Myotis monstrosus*, of Africa. They produce a series of loud, low-frequency honking calls at breeding time, not solitarily but in groups (known as leks) with other males. All the males are concentrated in a small area, trying to out-shout each other: the combined cacophony has been aptly compared to a pond full of noisy frogs. If a female ventures near, the calls become more frantic as each suitor tries to lure her with his own sweet love song. In no other mammal has the anatomy been so modified for sound production - the males have large inflatable air-sacs housed in an elongated hammer-shaped head and a huge larynx (voice-box), almost half the length of their backbone, which fills so much of the chest cavity that the heart and lungs are pushed to the back and sides.

Stage: New/main topic

#### **Mating**

A single male may mate with 30 or more females. Sometimes the element of choice is removed from the mating strategy because males may move around in hibernacula and mate with hibernating females. The females carry the males' live sperm inside the uterus throughout the winter months, ovulate in spring and become pregnant. This method is unusual, and few mammals other than bats use it. Some species of bats rely on delayed implantation, where the egg is produced and fertilized by the sperm, but it is

Article #3

# The white-nose syndrome mystery

Something is killing our bats

BIG topic: problem

West Mass

ence

Bad

In February 2006 some 40 miles west of Albany, N.Y., a caver photographed hibernating bats with an unusual white substance on their muzzles. He noticed several dead bats. The following winter, New York Department of Environmental Conservation biologists documented white-nose syndrome after seeing bats behaving erratically, bats with white noses and a few hundred dead bats in several caves. Some 400,000 hibernating bats have died since then.

## Bat death zone

Biologists have found sick, dying and dead bats in unprecedented numbers in and around caves and mines from Vermont to Virginia. In some hibernacula (caves and mines where bats hibernate in the winter) in New York and New England, 90 to 100 percent of the bats are dying. In a hibernaculum, affected bats usually have white fungus on their muzzles and other parts of their bodies. They frequently lack adequate body fat to survive until spring. These bats may move to cold parts of the hibernaculum, fly during the day and during cold winter weather when the insects they feed upon are not available, and exhibit other uncharacteristic behavior.

## Working together to find answers

A broad partnership of nearly 100 federal and state agencies, academia, researchers, non-government organizations and international partners are working in concert to solve the WNS mystery. State biologists are on the front line, doing the bulk of the survey work in bat hibernacula. The U.S. Fish and Wildlife Service is supporting and coordinating the partnership.

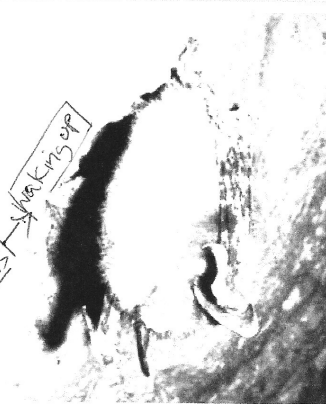
Researchers are exploring a variety of avenues they hope will lead to solving this wildlife health crisis. Despite the continuing search to find the source of WNS by numerous laboratories and state and federal biologists, the cause of the bat deaths remains unknown. Federal and state agencies are overwhelmed by the unanticipated WNS work, but they remain committed to finding answers and are doing everything they can within their limited resources.

Recent identification of the fungus (*Geomyces* sp.) found on affected bats may be one step toward an answer. It may be causing bat deaths, or it may be secondary to the cause of deaths. The fungus thrives in the cold and humid conditions characteristic of bat hibernacula. The fungus may not be readily visible on the bats, especially after they leave the hibernaculum and groom themselves.

## Spreading WNS

Biologists do not know how WNS is transmitted, but they believe that it spreads primarily by bat-to-bat contact. In addition, people may inadvertently contribute to the spread since some caves used by people have WNS-affected bats, while other, nearby caves not used by people do not seem to be affected.

The Service issued a cave advisory in March asking cavers to stay out of caves in affected states and adjoining states. The advisory also asks cavers - when visiting caves outside of the affected and adjoining states - to refrain from using clothing and gear that has been used in affected and adjoining states. The Service hopes



Bat affected with white-nose syndrome

that compliance with the cave advisory will help slow the spread of WNS until researchers can find the cause and cure. Some states and organizations have issued their own cave advisories.

As a precaution, biologists and researchers wear protective clothing when visiting WNS-affected caves, although there is no known human health risk associated with WNS.

## The future of bats

If we cannot find how to eradicate WNS, we face the real possibility of losing entire bat species. The majority of bats dying are little brown bats, one of the most abundant bats in the United States. Other affected bat species include tri-colored, northern long-eared, big brown, small-footed and Indiana bats. Some 10 percent of the endangered Indiana bat population was in New York, the epicenter of WNS, but a significant number has

Topic shift  
History of previous seasonal changes  
WNS  
Shaking up  
Latin

Lin hadley



## Article 4 of 5

### Fish and Wildlife Service

#### White Nose Syndrome of Bats

May 2010

#### What is it?

White-nose Syndrome (WNS) of bats is a disease caused by the fungus *Pseudogymnoascus destructans* (formerly known as *Geomyces destructans*). The disease is estimated to have killed over six million bats in the eastern United States since 2006, and can kill up to 100 % of bats in a colony during hibernation. Although it has not been found in Washington to date, the fungus and disease are spreading rapidly across North America towards the West and into Canada.

The fungus grows on the noses, wings and ears of bats during winter hibernation, giving them a white, fuzzy appearance. The fungus invades the deep skin tissues and causes extensive damage.

Affected bats arouse more often during hibernation which causes them to burn up their crucial fat reserves needed to sustain them through hibernation, leading to starvation and death. Additional hypothesized causes for mortalities include impairment of physiological processes due to wing damage, including reduced circulatory and thermoregulatory abilities, reduced gas exchange capabilities, and dehydration.

#### Species Affected

To date, seven cave hibernating species of bats in eastern North America have been found to be afflicted by WNS. These include the little brown bat (*Myotis lucifugus*),

#### Homework tonight:

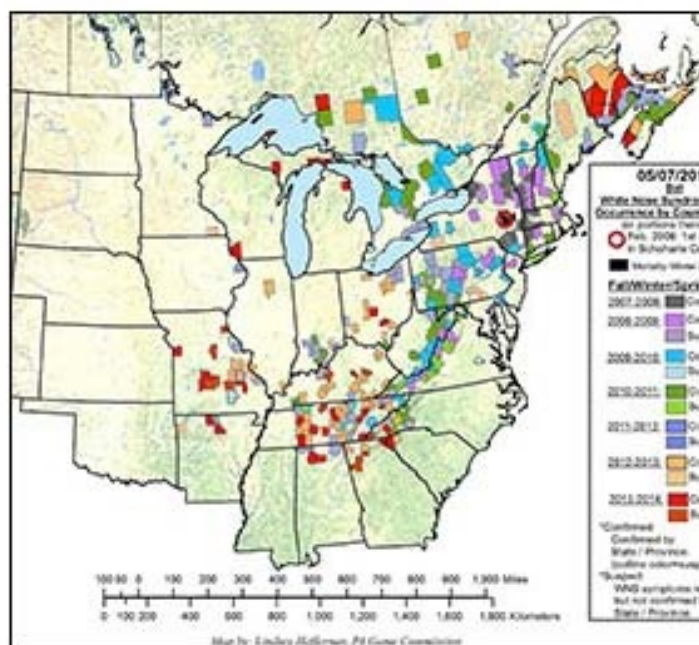
Just as we did in class, please fill out the "stages" you think are making this text fit together. Place your responses in the boxes on the left. You can add more boxes where you see fit. Record your stages and the text's features (images, subtitles) on the class notes sheet.



*Bats exhibiting *Pseudogymnoascus destructans* fungus on their muzzles. This fungus causes WNS in bats.*

Nancy Heaslip, New York Department of Environmental Conservation

northern long-eared bat (*M. septentrionalis*), eastern small-footed bat (*M. leibii*), Indiana bat (*M. sodalis*; federally endangered), Gray bat (*M. grisescens*), tricolored bat (*Perimyotis subflavus*) and big brown bat (*Eptesicus fuscus*). Three additional species have been found with the causative fungus on them, but have not developed the disease. The reason(s) they have not developed disease is unknown. Little brown bats and big brown bats occur in Washington, in addition to another 11 cave/mine-roosting species that are potentially at risk in this state. There is currently no indication that humans or other animal species are susceptible to infection with the fungus that causes WNS.



Range map for White Nose Syndrome.

## Clinical Signs in bats

Clinical signs of WNS in bats include:

- the presence of a white powder-appearing substance on their nose, wings or ears during hibernation when their body temperatures are reduced and the environment is near freezing;
- emaciation;
- damaged wings; and
- activity during winter, including flying outside during freezing temperatures.

## Transmission

WNS appears to spread primarily through physical bat-to-bat contact or infected environment-to-bat contact. Humans have the potential to spread the fungus to new locations when it may attach to clothing and gear used in caves, mines and roosts. Those who visit bat roosts, caves, and mines are strongly urged to decontaminate all clothing and gear afterwards by using appropriate cleaning and disinfection protocols (see US Fish and Wildlife Service Decontamination Protocol)

## Article 5

OBJECTIVE: Building the "field"---recognizing the way language is used in science. ✓

### Twilight for Bats

Bats are crucial to ecosystems—devouring insects, dispersing seeds, and pollinating flowers. But in the U.S. an insidious new enemy is causing massive die-offs.

#### By David Quammen

On the outskirts of Madison, Wisconsin, stands a low brick structure equipped with ventilation scrubbers and surrounded by a tall chain-link fence: the Tight Isolation Building of the U.S. Geological Survey's National Wildlife Health Center (NWHC), a federal research facility devoted to combating wildlife diseases. Inside, a cinder block corridor circuits the Animal Isolation Wing, passing a series of well-sealed experiment rooms, each visible through a thick window. One room is furnished with sawdust and burrowlike pipes to approximate the habitat for prairie dogs involved in a vaccine trial against *Yersinia pestis*, the organism that causes plague. In another room zebra finches in birdcages are playing a role in research toward a vaccine for West Nile virus. Two rooms are darkened, for the comfort of hibernating bats. The first contains normal animals of the species *Myotis lucifugus*, commonly called little brown bats. They are the controls. The second dark room houses little browns exposed to *Geomyces destructans*, a filamentous white fungus of unknown origin that first appeared among North American bats in 2006. In just four years, it has hit hibernating bat populations in New York, Vermont, and a growing list of other states and Canadian provinces more lethally than *Yersinia pestis* hit the peasants of medieval France.

David S. Blehert, a microbiologist at NWHC, leads the laboratory study of this nefarious fungus. He enters the second dark room wearing Tyvek coveralls, rubber boots, latex gloves, a red-filtered headlamp, and a respirator. Moving quietly to avoid rousing the animals, he approaches a large glass-fronted cabinet in which sits a small, screened cage of bats. The cabinet is a florist's refrigerator, adopted by Blehert because hibernating bats, like cut lilies, do best at low temperatures and high humidity. Blehert peers into the cooler, checking the bats for evidence of fungal growth around their muzzles or on their wings. White fuzz on the snout, which looks like rime on the beard of a skier, is a signal that the bat may be infected; it's also the source of the label "white-nose syndrome" for this affliction.

No sign of change, Blehert tells me back in the locker room. No mortalities so far, and no visible fungus. But the experiment is still in an early stage.

How does this fungus kill the bats? "That we don't know," he says. "It is, I believe, the first disease ever characterized specifically targeting a hibernating animal." So its mode of lethality may be different from anything science has ever seen. And that's only one of the unknowns.

The fungus itself seems to be new to North America. Its presence was first documented—but not yet recognized—in a photograph taken in February 2006 at Howes Cave, west of Albany, New York. A year later, people began to report something peculiar: little brown bats flying outside nearby caves during daylight in the midst of winter. A little brown bat is a tiny creature, smaller than a human thumb, and dependent on its two grams of stored fat to keep it alive

<http://ngm.nationalgeographic.com/print/2010/12/bat-crash/quammen-text>

## Appendix 4: Hurricane Katrina Text

### Directions:

1. Read the article and make any corrections on proper nouns.
2. Read it a second time—YOU MAY NOT CHANGE any words—or add in more words. You can ONLY eliminate the “non bossy” voice.
3. Read it a third time. Listen for flow and take out anything that feels “out of place”
4. How has removing the talking voice changed the register of the writing? What makes this more “bossy”?

### My essay on my article “Hurricane damages the region”

Here are three examples of why I think that the hurricane in New Orleans was really devastating for the people of the gulf Coast region. Before I tell you the reasons, I think you should know that the Hurricane hit the gulf coast of the United states on september 26 2005. Anyway, when it hit, massive destruction was the result. 200 billion gallons of floodwaters from both Lake Ponchatrain and the hurricane rain inundated the city, and the majority of the infrastructure was damaged.

The first reason that I think that the katrina was really devastating for the region is that 66,000 people were not evacuated quickly enough and do you know what happened to them? They ended up going in shelters that were not prepared to house them. If you don't believe me, guess what happened next? People were really angered by their sudden lack of resources. They were cooped up in under prepared shelters, drinking dirty water (if any at all), eating stale and unhealthy food, and lets just say, they did not exactly have proper bathroom facilities. Ew! Many lived in the superdome, home of the New Orleans saints. News reporters went on and on reporting that help was needed immediately. Sometimes people ignore other requests, you know?

The second example of why I think that the hurricane in New Orleans was really devastating for the people of the region is because this natural disaster exposed natural poverty lines that were preexisting in Louisiana. I learned that the majority of the people who were unable to get out of the city and obtain proper resources, were already living far below the poverty level. This makes me sad, because those people who had the money and



resources to get out of New Orleans did, and those who did not get out on time blamed lack of money and personal transportation. This is why the poverty lines were exposed.

Finally, I am ready to tell you the last reason that this storm was really devastating for the region. It seems like many politicians that were supposed to be keeping New Orleans safe ended up pointing fingers at one another and not working together to fix the immediate problem. Due to that, the city was neglected and looting, robbery, shooting, fighting and exhausted police forces resulted. These are the three reasons why I think that the hurricane was clearly destructive to the region and I think that the Gulf Coast region will take years for it to recover.

This hurricane changed more than just geography of the city. It changed everything that the people of New Orleans knew to be real into a chaotic, socio-political nightmare. So, as you can see, these are the reasons why that this hurricane was more than just a hurricane.

Appendix 5: Bat Rubric **WHITE NOSE SYNDROME** The investigation...(rubric)

	<b>Got it!</b>	<b>Everything's there- does the job.</b>	<b>Everything's there, short and simple.</b>	<b>Stuff is missing, vague or confusing.</b>
<b><u>PREPARATION</u></b>				
<b>Roadmap: Parts identified, reflects the prompt</b>	YES!	Almost	You need to...	Please submit
<b>Completed Template-#d, organized</b>	YES!	Almost	You need to...	Please submit
<b><u>GENRE MOVES</u></b>				
<b>Background (essay) or purpose (letter)</b>	Great-your essay is framed.			
<b>Argument</b>	Clear, strong	Almost	You need to...	Please rethink
<b>Reasons (1,2, 3... up to you)</b>	GOT them all	Missing 1:	You need to...	Please redo essay
<b>Solution</b>	Excellent ideas	Almost	YOu need to...	Where?
<b>Topic sentences and baby so whats</b>	Got them all- paragraphs open and close well.	Good, keep working at these.	Some work needed	Where?
<b>BIG So What</b>	Conclusive, doesn't restate	Close	Restatement	Where?
<b>Something I forgot? A genre move you added? Show me!</b>				
<b><u>ORDER</u></b>				
<b>Sequence of ideas</b>	Rational, clear	Almost	Rethink this aspect of order...	Redo
<b>Order of paragraphs</b>	Rational, clear	Almost	Rethink this aspect of order...	Redo
<b><u>LANGUAGE</u></b>				

<b>BOSSY words</b>	Academic register, use of references to other parts of essay	Good transitions, work on references	You need to...	None
<b>NO chit chat</b>	Excellent bossy register	Somewhat bossy	You need to...	Please reread and resubmit
<b>Clauses</b>	Interesting variety	Some variety	Choppy	Too Choppy
<b>Cohesion</b>	small but important words, lexical chains, themes maintained.... (I will look at your lexical chained letter for this)			
<b>Process variety/Science language</b>	Terrific	Getting there	Watch out for too many relational verbs... Ideas for change:	
<b><u>DETAILS</u></b>				
<b>Caps, punctuation</b>	YES!	Couple of errors	Many errors	Hardly any punctuation
<b>Commas</b>	Got them all	Let's meet about this rule:	Many missing, let's talk.	No commas?
<b>Spelling</b>	All words spelled correctly	Only a couple spelled incorrectly	A lot of words spelled incorrectly— Let's check in.	

*NOTES and Final grade:*

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Appendix 6: Case Study Database Record (adapted from Patton, 2002)

Data Collected			
Research question	What Was Collected	When Collected	Why Collected
<b>Research Questions</b>			
<p>&gt;RQ How did my students' textual practices shift over time, if at all, in response to an SFL/GBP based language pedagogy?</p>	Student Texts-Baselines	At beginning of the school year (September, 2011)	Baseline data for school data team.
	Kia and Tally letters to government	December, 2011	<p>&gt;To employ full SFL FTM/G analysis with CDA guidelines</p> <p>&gt;To determine if any changes in student writing development</p> <p>&gt;To analyze student progress and determine where to go with instruction beyond research project</p>
<p>&gt;RQ How did my students' textual practices shift over time, if at all, in response to an SFL/GBP based language pedagogy?</p> <p>&gt;RQ How did my instruction change over time as I implemented an SFL based pedagogy to support academic literacy development in my classroom?</p>	>Classroom materials on vocations and genre	October, 2011	Connect genre to authentic writing, intended to break students of fixed writing described in initial meetings.
	Disruptive plot charts	October, 2011	Demonstrate for students that short stories did not all follow the school's set plot chart.
	Fake letters to the editor	October, 2011	Connect genre stages to purpose of letters.
	Text analysis on WNS	December, 2011	Name and label stages of scientific texts as purposeful.
<p>&gt;RQ How did my students' textual practices shift over time, if at all, in response to an SFL/GBP based language pedagogy?</p> <p>&gt;RQ How did my instruction change over time as I implemented an SFL based</p>	Video (transcribed)	During each class meeting where SFL instruction was introduced/implemented. In particular 11/1-11/30, and again in March/2012.	<p>&gt;To analyze teacher and class interaction</p> <p>&gt;To add information to thick description of classroom culture.</p> <p>&gt;To observe student and student interaction</p> <p>&gt;To collect information on metalanguage</p>

Data Collected			
Research question	What Was Collected	When Collected	Why Collected
pedagogy to support academic literacy development in my classroom?	Classroom Materials	All year long, very detailed set of classroom materials however from unit on WNS.	To analyze the way in which students were taking up and implementing SFLML.
	Letter from US government	March, 2012	Students demonstrated full analysis of text, both genre and register, and were allowed to mark it up accordingly.
>RQ How did my students' textual practices shift over time, if at all, in response to an SFL/GBP based language pedagogy?  >RQ How did my instruction change over time as I implemented an SFL based pedagogy to support academic literacy development in my classroom?	Transcripts from lessons	During phase 3: December, 2011, January, 2012.	Students were actively seeking out ways to "sound bossy" and not use "chit chat" language. They wanted to develop a credible identity, and they saw the role of language to do this.

## APPENDIX B

### REGISTER AND GENRE ANALYSIS OF STUDENT TEXTS

## Analysis of Tally's WNS Letter

Dear Senator John Kerry,

The purpose of this letter is to inform you of my problem with the overall issue of White Nose Syndrome (WNS), a highly deadly disease that occurs in bats. I feel this issue should be brought up in congress because it has hit Massachusetts the hardest and you represent Massachusetts.

WNS is a potentially fatal bat disease caused by a fungus called *Geomyces destructans*. The fungus appears as a white fungus with cotton webbed look, it "lives" on the face of bats and some parts of the wings. The disease affects them while they are in hibernation. When bats go into hibernation they lower their body temperature down to 55 degrees Fahrenheit and slow down their breathing to one breath per hour. They also slow down their heart rate to 20 beats a minute against their usual 400. Scientists have a theory on how this disease is transferred. This is the theory: bats hibernate in clusters, one bat has the disease and touches another bat and it spreads. The name for the spreading of the disease is bat-to-bat contact. Bats hibernate in caves in one cave WNS will kill 95% to 100% of all bats in a cave. In one cave in New York 300,000 bats used to hibernate in the cave in 2007 and in 2010 only 35 were found hibernating.

WNS is killing hundreds of thousands of bats across the northeast and one of the states has been hit the hardest is Massachusetts. There are 9 species of affected bats in the areas that have been hit. Three of the 9 species migrate and 6 hibernate. The 6 that hibernate are the ones affected. The species that are affected by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. The disease is in 16 states and some of the easternmost places in Canada, but in terms of western Massachusetts WNS is killing millions of our bats.

The impact of WNS is hurting our ecosystem. 90% of all 46 species of bats in America eat insects. If the insect eating were to suddenly drop out of our ecosystem, diseases that bugs spread such as West Nile, Lyme Disease, Encephalitis etc. could potentially kill a lot of humans. People already worry of bugs that spread diseases in America already, if the bats' numbers were to suddenly drop there would be more worrying and complaints to congress and the government telling them to do something about it. So in summation WNS could put down the bats numbers and in the end harm us.

A theory I have for a possible solution to this problem is that possibly you could bring this up with congress and tell them what a big deal this is, and could possibly fund a research group. We could also inform children of this issue so the next generation has a good understanding.

In conclusion Senator John Kerry this issue could break down multiple parts of our eco-system and something we the students of "Northtown" middle school would appreciate a congressional effort.

I await your response on this urgent matter.

Sincerely,

**Clause Breaks:**

Dear Senator John Kerry,

1. The purpose of this letter is to inform you of my problem with the overall issue of White Nose Syndrome (WNS),/
2. a highly deathly disease that occurs in bats.//
3. I feel this issue/
4. should be brought up in congress/
5. because it has hit Massachusetts the hardest/
6. and you represent Massachusetts.//
  
7. WNS is a potentially fatal bat disease/
8. caused by a fungus called *Geomyces destructans*.//
9. The fungus appears as a white fungus with cotton webbed look,/
10. it "lives" on the fat of bats and some parts of the wings.//
11. The disease affects them
12. while they are in hibernation.//
13. When bats go into hibernation/
14. they lower their body temperature down to 55 degrees Fahrenheit/
15. and slow down their breathing to one breath per hour. //
16. They also slow down their heart rate to 20 beats a minute against their usual 400. //
17. Scientists have a theory /
18. on how this disease is transferred. //
19. This is the theory:/
20. bats hibernate in clusters, /
21. one bat has the disease /
22. and touches another bat /
23. and it spreads. //
24. The name for the spreading of the disease is bat-to-bat contact. //
25. Bats hibernate in caves/
26. in one cave WNS will kill 95% to 100% of all bats in a cave. //
27. In one cave in New York 300,000 bats used to hibernate in the cave in 2007/
28. and in 2010 only 35 were found hibernating. //
  
29. WNS is killing hundreds of thousands of bats across the northeast/
30. and one of the states has been hit the hardest is Massachusetts. //
31. There are 9 species of effected bats in the areas /
32. that have been hit. //
33. Three of the 9 species migrate
34. and 6 hibernate. //
35. The 6 that hibernate are the ones affected. //
36. The species that are affected by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. //
37. The disease is in 16 states and some of the easternmost places in Canada,/
38. but in terms of western Massachusetts WNS is killing millions of our bats.//
  
39. The impact of WNS is hurting our ecosystem.//
40. 90% of all 46 species of bats in America eat insects. //
41. If the insect eating were to suddenly drop out of our ecosystem, /
42. diseases that bugs spread such as West Nile, Lime Disease, Encephalitis etc. /
43. could potentially kill a lot of humans. //
44. People already worry of bugs /
45. that spread diseases in America already, /
46. if the bats' numbers were to suddenly drop/
47. there would be more worrying and complaints to congress and the government /
48. telling them to do something about it. //



49. So in summation WNS could put down the bats numbers/  
50. and in the end harm us.//
51. A theory I have for a possible solution to this problem is that possibly/  
52. you could bring this up with congress /  
53. and tell them what a big deal/  
54. this is, /  
55. and could possibly fund a research group.//  
56. We could also inform children of this issue /  
57. so the next generation has a good understanding.//
58. In conclusion Senator John Kerry this issue could break down multiple parts of our eco-  
system/  
59. and something we the students of "Northtown"middle school would appreciate a  
congressional effort.//
60. I await your response on this urgent matter.

# of clauses: 60  
Grammatical Intricacy: 2.14  
Lexical Density: 48.73

# Field Analysis

Clause #	Participant	Process	Participant	Circumstance
1	The purpose of this letter	is to inform	you	of my problem with the overall issue of WNS.
2	a highly deathly disease that	occurs	in bats	
3	I	feel		
4	this issue	should be brought up		in congress
5	it	has hit	Massachusetts	-because the hardest
6	you	represent	Massachusetts	-and
7	WNS	is	potentially fatal disease	
8	X	caused	by a fungus	called Geomyces Destructans
9	The fungus	appears		as a white fungus with cotton webbed look
10	it	lives	on the fat of bats	and some parts of the wings
11	The disease	affects	them	
12	they	are		-while in hibernation
13	bats	go		into hibernation
14	they	lower	their body temperature	down to 55 degrees F.
15	[they	slow down	their breathing	to one breath per hour

Clause #	Participant	Process	Participant	Circumstance
16	They	slow down	their heart rate	to 20 beats a minute against their usual 400
17	Scientists	have	a theory	
18	this disease	is transferred		
19	This	is	the theory:	
20	bats	hibernate	in clusters	
21	one bat	has	the disease	
22	X	touches	another bat	
23	it	spreads.		
24	The name for the spreading of the disease	is	bat-to-bat contact.	
25	Bats	hibernate		in caves.
26	WNS	will kill	95% to 100% of all bats	-In one cave in a cave
27	300,000 bats	used to hibernate		-In one cave in NY in the cave in 2007
28	XX only 35 [bats]	were found hibernating.		and in 2010
29	WNS	is killing	hundreds of thousands of bats	across the northeast.
30	one of the states that has been hit the hardest	is	Massachusetts	
31	There	are	9 species of affected bats	in the areas
32	that	have been hit.		

Clause #	Participant	Process	Participant	Circumstance
33	Three of the 9 species	migrate		
34	6	hibernate		
35	The 6 that hibernate are the ones	affected		
36	The species that are affected by WNS	are	Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats.	
37	The disease	is		in 16 states and some of the easternmost places in Canada
38	WNS	is killing	millions of our bats.	-but in terms of western Massachusetts
39	The impact of WNS	is hurting	our ecosystem	
40	90% of all 46 species of bats in America	eat	insects	
41	insect eating	were to suddenly drop out		of our ecosystem
42	diseases that bugs	spread	West Nile, Lime Disease, Encephalitis	
43	XX	could potentially kill	a lot of humans.	
44	people	worry	of bugs	
45	that	spread	diseases	in America already

Clause #	Participant	Process	Participant	Circumstance
46	bats' numbers	were		to suddenly drop
47	there	would be	more worrying	and complaints to congress and the government
48	XX	telling	them	to do something about it.
49	WNS	could put down	the bats numbers	
50	XX	harm us		-in the end
51	A theory I have for a possible solution to this problem	is		that possibly
52	you	could bring	this up	with congress
53	XX	tell them	what a big deal	
54	this	is		
55	[congress?]	could possibly fund	a research group	
56	We	could also inform	children	of this issue
57	the next generation	has	a good understanding	
58	this issue	could break down	multiple parts of our ecosystem	-In conclusion Senator John Kerry
59	we the students of "Northtown"middle school	would appreciate	a congressional effort.	
60	I	await	your response	on this urgent matter.

Mode Analysis: Theme/Rheme

Theme	Rheme
The purpose of this letter is to inform you	of my problem with the overall issue of White Nose Syndrome (WNS),/
a highly deathly disease	that occurs in bats.//
I feel	this issue/
should be brought up	in congress/
because it has hit	Massachusetts the hardest/
and you	represent Massachusetts.//
WNS is	a potentially fatal bat disease/
caused by	a fungus called Geomyces Destructans.//
The fungus	appears as a white fungus with cotton webbed look,/
it	“lives” on the fat of bats and some parts of the wings.//
The disease	affects them
while they	are in hibernation.//
When bats	go into hibernation/
they	lower their body temperature down to 55 degrees Fahrenheit/
and [XX]	
They	also slow down their heart rate to 20 beats a minute against their usual 400. //
Scientists	have a theory /
on how this disease	is transferred. //
This	is the theory:/
bats	hibernate in clusters, /
one bat	has the disease /

and [XX]	touches another bat /
and it	spreads. //
The name for the spreading of the disease	is bat-to-bat contact. //
Bats	hibernate in caves/
in one cave WNS	will kill 95% to 100% of all bats in a cave. //
In one cave in New York	300,000 bats used to hibernate in the cave in 2007/
and in 2010	only 35 were found hibernating. //
WNS	is killing hundreds of thousands of bats across the northeast/
and one of the states has been hit the hardest	is Massachusetts. //
There are	9 species of effected bats in the areas /
that	have been hit. //
Three of the 9 species	migrate/
and 6	hibernate.//
The 6 that hibernate	are the ones affected. //
The species that are affected by WNS are:	Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. //
The disease is	in 16 states and some of the easternmost places in Canada,/
but in terms of western Massachusetts	WNS is killing millions of our bats.//
The impact of WNS	is hurting our ecosystem.//
90% of all 46 species of bats in America	eat insects. //
If the insect eating	were to suddenly drop out of our ecosystem, /
diseases that bugs spread	such as West Nile, Lime Disease, Encephalitis etc. /
could potentially kill	a lot of humans. //

People already	worry of bugs /
that spread diseases	in America already, /
if the bats' numbers	were to suddenly drop/
there would be	more worrying and complaints to congress and the government /
telling them	to do something about it. //
So in summation WNS	could put down the bats numbers/
and in the end	harm us.//
A theory I have	for a possible solution to this problem is that possibly/
you could	bring this up with congress /
and tell them	what a big deal/
this	is, /
and could possibly	fund a research group.//
We	could also inform children of this issue /
so the next generation	has a good understanding.//
In conclusion Senator John Kerry this issue	could break down multiple parts of our eco-system/
and something we the students of "Northtown"middle school	would appreciate a congressional effort.//
I	await your response on this urgent matter.



# Tenor Analysis

Text Subject+Finite in bold Residue	Polarity, Appraisal, Modality
<b>The purpose of this letter is to inform</b> you of my problem with the overall issue of White Nose Syndrome (WNS),/	
a highly deathly <b>disease that occurs</b> in bats.//	high appraisal: highly, deathly
<b>I feel</b> this issue/	appraisal: I feel
<b>should be brought up</b> in congress/	
because <b>it has hit</b> Massachusetts the hardest/	appraisal: hardest
and <b>you represent</b> Massachusetts.//	
<b>WNS is</b> a potentially fatal bat disease/	appraisal: potentially fatal
<b>caused</b> by a fungus called Geomyces Destructans.//	
<b>The fungus appears</b> as a white fungus with cotton webbed look,/	
<b>it “lives”</b> on the fat of bats and some parts of the wings.//	
<b>The disease affects</b> them	
while <b>they are</b> in hibernation.//	
When <b>bats go</b> into hibernation/	
<b>they lower</b> their body temperature down to 55 degrees Fahrenheit/	
and <b>slow down</b> their breathing to one breath per hour. //	
<b>They also slow down</b> their heart rate to 20 beats a minute against their usual 400. //	

<b>Scientists have</b> a theory /	
on how <b>this disease is transferred.</b> //	
<b>This is</b> the theory:/	
<b>bats hibernate</b> in clusters, /	
<b>one bat has</b> the disease /	
and <b>touches</b> another bat /	
and <b>it spreads.</b> //	
<b>The name for the spreading of the disease is</b> bat-to-bat contact. //	
<b>Bats hibernate</b> in caves/	
in one cave <b>WNS will kill</b> 95% to 100% of all bats in a cave. //	
In one cave in New York <b>300,000 bats used to hibernate</b> in the cave in 2007/	
and in 2010 only <b>35 were found hibernating.</b> //	
<b>WNS is killing</b> hundreds of thousands of bats across the northeast/	
and <b>one of the states has been hit the hardest is</b> Massachusetts. //	appraisal: hit the hardest
<b>There are</b> 9 species of effected bats in the areas /	
that have been hit. //	appraisal: hit the hardest
<b>Three of the 9 species migrate/</b>	
and <b>6 hibernate.</b> //	
<b>The 6 that hibernate are</b> the ones affected. //	

<b>The species that are affected</b> by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. //	
<b>The disease is</b> in 16 states and some of the easternmost places in Canada, /	
but in terms of western Massachusetts <b>WNS is killing</b> millions of our bats.//	appraisal: millions
<b>The impact of WNS is hurting</b> our ecosystem.//	appraisal: hurting
<b>90% of all 46 species of bats in America eat</b> insects. //	
If the <b>insect eating</b> were to suddenly drop out of our ecosystem, /	appraisal: suddenly drop nominalization: insect eating
<b>diseases that bugs spread</b> such as West Nile, Lime Disease, Encephalitis etc. /	
<b>could potentially kill</b> a lot of humans. //	appraisal: potentially kill modal: could
<b>People already worry</b> of bugs /	appraisal: worry
<b>that spread</b> diseases in America already, /	
if the <b>bats' numbers were</b> to suddenly drop/	appraisal: suddenly
<b>there would be</b> more worrying and complaints to congress and the government /	modal: would
<b>telling</b> them to do something about it. //	
So in summation <b>WNS could put</b> down the bats numbers/	modal: could
and in the end <b>harm</b> us.//	appraisal: harm us

<b>A theory I have</b> for a possible solution to this problem is that possibly/	modal: possible, possibly
<b>you could bring</b> this up with congress /	modal: could
and <b>tell</b> them what a big deal/	appraisal: big deal
<b>this is,</b> /	
and <b>could possibly fund</b> a research group.//	modal: could possibly
<b>We could also inform</b> children of this issue /	modal: could
so <b>the next generation has</b> a good understanding.//	
In conclusion Senator John Kerry <b>this issue could break down</b> multiple parts of our eco-system/	appraisal: break down or is it nominalization?
and something <b>we the students of “Northtown” middle school would appreciate</b> a congressional effort.//	grammatical metaphor: congressional-?-
<b>I await</b> your response on this urgent matter.	appraisal: urgent

Text Subject+Finite in bold Residue	Polarity, Appraisal, Modality
<b>The purpose of this letter is to inform</b> you of my problem with the overall issue of White Nose Syndrome (WNS),/	
a highly deathly <b>disease that occurs</b> in bats.//	high appraisal: highly, deathly
<b>I feel</b> this issue/	appraisal: I feel
<b>should be brought up</b> in congress/	

because <b>it has hit</b> Massachusetts the hardest/	appraisal: hardest
and <b>you represent</b> Massachusetts.//	
<b>WNS is</b> a potentially fatal bat disease/	appraisal: potentially fatal
<b>caused</b> by a fungus called Geomyces Destructans.//	
<b>The fungus appears</b> as a white fungus with cotton webbed look,/	
<b>it “lives”</b> on the fat of bats and some parts of the wings.//	
<b>The disease affects</b> them	
while <b>they are</b> in hibernation.//	
When <b>bats go</b> into hibernation/	
<b>they lower</b> their body temperature down to 55 degrees Fahrenheit/	
and <b>slow down</b> their breathing to one breath per hour. //	
<b>They also slow down</b> their heart rate to 20 beats a minute against their usual 400. //	
<b>Scientists have</b> a theory /	
on how <b>this disease is transferred.</b> //	
<b>This is</b> the theory:/	
<b>bats hibernate</b> in clusters, /	
<b>one bat has</b> the disease /	
and <b>touches</b> another bat /	
and <b>it spreads.</b> //	
<b>The name for the spreading of the disease is</b> bat-to-bat contact. //	

<b>Bats hibernate</b> in caves/	
in one cave <b>WNS will kill</b> 95% to 100% of all bats in a cave. //	
In one cave in New York <b>300,000 bats used to hibernate</b> in the cave in 2007/	
and in 2010 only <b>35 were found hibernating.</b> //	
<b>WNS is killing</b> hundreds of thousands of bats across the northeast/	
and <b>one of the states has been hit the hardest is</b> Massachusetts. //	appraisal: hit the hardest
<b>There are</b> 9 species of effected bats in the areas /	
that have been hit. //	appraisal: hit the hardest
<b>Three of the 9 species migrate/</b>	
and <b>6 hibernate.</b> //	
<b>The 6 that hibernate are</b> the ones affected. //	
<b>The species that are affected</b> by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. //	
<b>The diesase is</b> in 16 states and some of the easternmost places in Canada,/	
but in terms of western Massachusetts <b>WNS is killing</b> millions of our bats.//	appraisal: millions
<b>The impact of WNS is hurting</b> our ecosystem.//	appraisal: hurting
<b>90% of all 46 species of bats in America eat</b> insects. //	

If the <b>insect eating</b> were to suddenly drop out of our ecosystem, /	appraisal: suddenly drop nominalization: insect eating
<b>diseases that bugs spread</b> such as West Nile, Lime Disease, Encephalitis etc. /	
<b>could potentially kill</b> a lot of humans. //	appraisal: potentially kill modal: could
<b>People already worry</b> of bugs /	appraisal: worry
<b>that spread</b> diseases in America already, /	
if the <b>bats' numbers were</b> to suddenly drop/	appraisal: suddenly
<b>there would be</b> more worrying and complaints to congress and the government /	modal: would
<b>telling</b> them to do something about it. //	
So in summation <b>WNS could put</b> down the bats numbers/	modal: could
and in the end <b>harm</b> us.//	appraisal: harm us
<b>A theory I have</b> for a possible solution to this problem is that possibly/	modal: possible, possibly
<b>you could bring</b> this up with congress /	modal: could
and <b>tell</b> them what a big deal/	appraisal: big deal
<b>this is,</b> /	
and <b>could possibly fund</b> a research group.//	modal: could possibly
<b>We could also inform</b> children of this issue /	modal: could
so <b>the next generation has</b> a good understanding.//	

In conclusion Senator John Kerry <b>this issue could break down</b> multiple parts of our eco-system/	appraisal: break down or is it nominalization?
and something <b>we the students of "Northtown"middle school would appreciate</b> a congressional effort.//	grammatical metaphor: congressional-?-
<b>I await</b> your response on this urgent matter.	appraisal: urgent



## Genre Analysis

Text	Potential name/stage	Discussion
Dear Senator John Kerry	Salutation	Focused instruction on discourse of letter writing. Evident.
The purpose of this letter is to inform you of my problem with the overall issue of White Nose Syndrome (WNS), a highly deathly disease that occurs in bats. I feel this issue should be brought up in congress because it has hit Massachusetts the hardest and you represent Massachusetts.	Purpose	
WNS is a potentially fatal bat disease caused by a fungus called <i>Geomyces destructans</i> . The fungus appears as a white fungus with cotton webbed look, it “lives” on the face of bats and some parts of the wings. The disease affects them while they are in hibernation. When bats go into hibernation they lower their body temperature down to 55 degrees Fahrenheit and slow down their breathing to one breath per hour. They also slow down their heart rate to 20 beats a minute against their usual 400. Scientists have a theory on how this disease is transferred. This is the theory: bats hibernate in clusters, one bat has the disease and touches another bat and it spreads. The name for the spreading of the disease is bat-to-bat contact. Bats hibernate in caves in one cave WNS will kill 95% to 100% of all bats in a cave. In one cave in New York 300,000 bats used to hibernate in the cave in 2007 and in 2010 only 35 were found hibernating.	<p>Explanation of WNS</p> <p>Impact of disease caused by WNS</p> <p>Result of WNS</p>	

WNS is killing hundreds of thousands of bats across the northeast and one of the states has been hit the hardest is Massachusetts. There are 9 species of effected bats in the areas that have been hit. Three of the 9 species migrate and 6 hibernate. The 6 that hibernate are the ones affected. The species that are affected by WNS are: Little Brown Bats, Northern Long Eared Bats, Big Brown Bats, Eastern Small Footed Bats, Tri Colored Bats, and Indiana Bats. The disease is in 16 states and some of the easternmost places in Canada, but in terms of western Massachusetts WNS is killing millions of our bats.	Data on current situation, need for change.	
The impact of WNS is hurting our ecosystem. 90% of all 46 species of bats in America eat insects. If the insect eating were to suddenly drop out of our ecosystem, diseases that bugs spread such as West Nile, Lime Disease, Encephalitis etc. could potentially kill a lot of humans. People already worry of bugs that spread diseases in America already, if the bats' numbers were to suddenly drop there would be more worrying and complaints to congress and the government telling them to do something about it. So in summation WNS could put down the bats numbers and in the end harm us.	Relating issue to human context.	
A theory I have for a possible solution to this problem is that possibly you could bring this up with congress and tell them what a big deal this is, and could possibly fund a research group. We could also inform children of this issue so the next generation has a good understanding.	Solution	
In conclusion Senator John Kerry this issue could break down multiple parts of our ecosystem and something we the students of "Northtown"middle school would appreciate a congressional effort.	Conclusion, call to action	
I await your response on this urgent matter.	Final/summative request	
Sincerely,  Tally	Closing,  Signature	

## Analysis of Kia's WNS Letter

Dear Secretary of Agriculture Thomas Vilsack,

PURPOSE: The purpose of this letter is to inform you that White Nose Syndrome (WNS) is not only affecting the bat population but also affecting agriculture immensely.

To begin with White Nose Syndrome is a disease that is killing bats at a rapid pace. The only evidence that scientist found so far is a *Fungus* called *geomyces destrucans*. This is what the scientists believe are killing the bats. They see that it grows onto the muzzles and wings and waking them up. They are being killed during hibernation. They wake up and there whole body temperature goes back to normal. When their body temperature goes back to normal they want to feed so they go to hunt, but there is no food to hunt for. The way it gets on bats is cavers or bat to bat contact. There are ways to prevent this.

Bats as we know them could be completely wiped out. The fungi are killing them which are making the bat population go down and the bug populations go up. That also affects your department of agriculture by crops going own because the bugs are feeding on them. If we have more bugs from the previous year than as time goes on we will run down on resources. I know bats don't want to die and we can prevent that but not just for there benefit but for our economy or our resources.

Agriculture is going to be the one that is hit the hardest because the bats save 3 billion dollars a year for the pest exterminators. That is why you need to help by funding or donating money to researchers to help prevent you losing money and so they don't have to suffer anymore. This is what you job is for and plus you owe the bats for saving you 3 billion dollars a year. I hope now you can see how important this issue really is. Thank you for your time.

Sincerely,

Kia

Clause breaks: FINAL WNS LETTER

Dear Secretary of Agriculture Thomas Vilsack,

1. PURPOSE: The purpose of this letter is to inform you
2. that White Nose Syndrome (WNS) is not only affecting the bat population
3. but also affecting agriculture immensely.
  
4. To begin with White Nose Syndrome is a disease/
5. that is killing bats at a rapid pace.//
6. The only evidence that scientist found so far/
7. XX is a ***Fungus***/
8. called *geomyces destrucans*. //
9. This is/
10. what the scientists believe are killing the bats.//
11. They see/
12. that it grows onto the muzzles and wings/
13. and XX waking them up.//
14. They are being killed during hibernation.//
15. They wake up/
16. and there whole body temperature goes back to normal.//
17. When their body temperature goes back to normal/
18. they want to feed
19. so they go to hunt,/
20. but there is no food to hunt for.//
21. The way it gets on bats is cavers or bat to bat contact. //
22. There are ways to prevent this.//
  
23. Bats as we know them could be completely wiped out.//
24. The fungi are killing them/
25. which are making the bat population go down/
26. and the bug populations go up. //
27. That also affects your department of agriculture/
28. by crops going own /
29. because the bugs are feeding on them. //
30. If we have more bugs from the previous year/
31. than as time goes on we will run down on resources. //
32. I know
33. bats don't want to die /
34. and we can prevent that [,] but not just for there benefit but for our economy or our resources.  
//
  
35. Agriculture is going to be the one/
36. that is hit the hardest/

- 37. because the bats save 3 billion dollars a year for the pest exterminators. //
- 38. That is/
- 39. why you need to help by funding or donating money to researchers to help prevent/
- 40. you losing money/
- 41. and so they don't have to suffer anymore.//
- 42. This is what your job is for/
- 43. and plus you owe the bats for saving you 3 billion dollars a year. //
- 44. I hope now /
- 45. you can see how important /
- 46. this issue really is. //
  
- 47. Thank you for your time.//

<p># of clauses: 47 Grammatical Intricacy: 2.23</p>
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# Field Analysis

Clause #	Participant	Process	Participant	Circumstance
1	The purpose of this letter	is to inform	you	
2	that WNS	is not only affecting	the bat population	
3	(but also)	affecting	agriculture	immensely
4	White Nose Syndrome	is	a disease	
5	that	is killing	bats	at a rapid pace
6	The only evidence that scientist found so far	is	a fungus	
7	XX	called	<i>geomyces destrucans</i>	
8	This	is		
9	what scientists believe	are killing	the bats.	
10	They	see		
11	that it	grows		onto their muzzles and wings
12	an [it, assumed]	is waking	them	up
13	They	are being killed		during hibernation
14	They	wake up		
15	and there whole body temperature	goes		back to normal
16	their body temperature	goes		back to normal
17	they	want to feed		
18	they	go to hunt		
19	there	is	no food	to hunt for

Clause #	Participant	Process	Participant	Circumstance
20	the way it	gets	on bats	
21	XX	is	cavers	or bat to bat contact
22	There	are	ways	to prevent this.
23	Bats as we know them	could be		completely wiped out.
24	The fungi	are killing	them	
25	which	are making	the bat population	
26	the bat population	go down		
27	the bug populations	go up.		up?
28	That (also)	affects	your department of agriculture.	by crops going (d)own.
29	the bugs	are feeding		on them.
30	we	have	more bugs	from the previous year
31	we	will run down	on resources	as time goes on
32	I	know		
33	bats	don't want to die		
34	we	can prevent	that?	but not just for there benefit  but for our economy or our resources.
35	Agriculture	is going to be	the one	
36	that	is hit		the hardest

Clause #	Participant	Process	Participant	Circumstance
37	the bats	save	3 billion dollars a year	for the pest exterminators
38	That	is	why	
39	you	need to help by funding or donating	money to researchers	by funding or donating
41	XX	to help prevent	you	
42	[you]	losing	money	
43	they	don't have to suffer		so anymore.
44	This	is		
45	your job	is		for
46	you	owe	the bats	for saving you 3 billion dollars a year.
47	I	hope		
48	you	can see		how important
49	WNS	is.		
50		Thank	you	for your time.



## Mode Analysis

Theme	Rheme
The purpose of this letter	is to inform you
that WNS	is not only affecting the bat population
but also	affecting agriculture immensely.
To begin with WNS	is a disease
that	is killing bats at a rapid pace
The only evidence that scientist	found so far is a Fungus
called	geomyces destructans
This	is what the scientists believe is killing the bats
They	see that
it	grows onto their muzzles and wings
XX [assumed=it]	waking them up
They	are being killed during hibernation
They	wake up and
there whole body temperature	goes back to normal.
When their body temperature goes back to normal	they way to feed
so they	go back to hunt
but there	is no food to hunt for
There	are ways to prevent this.
Bats as we know them	could be completely wiped out
The fungi	are killing them
which are making the bat population	go down
and the bug population	go up.

Theme	Rheme
That also	affects your department of agriculture by crops going down
because the bugs	are feeding on them.
If we have more bugs from the previous year	than as time goes on we will run down on resources
I know	bats don't want to die
and we	can prevent that
not just for their benefit	but for our benefit of our economy or our resources
Agriculture is going to be the one	that is hit the hardest
because the bats	save 3 billion dollars a year for pest exterminators
That is why you	need to help by funding or donating money to researchers to help prevent you losing money
and so they	don't have to suffer anymore
This	is what your job is for
and plus you	owe it to the bats
for saving you	3 billion dollars a year.
I hope now you	can see how important WNS really is.
Thank you for your time.	

# Tenor Analysis

SUBJECT/FINITE RESIDUE	NOTES
PURPOSE: <b>The purpose of this letter is</b> to inform you	
2. <b>that White Nose Syndrome (WNS) is not</b> only affecting the bat population	
3. but also <b>affecting</b> agriculture immensely.	appraisal: immensely
4. To begin with <b>White Nose Syndrome is</b> a disease/	
5. that <b>is killing</b> bats at a rapid pace.//	appraisal: rapid
6. <b>The only evidence that scientist found</b> so far/	
7. XX <b>is</b> a <i>Fungus</i> /	
8. <b>called</b> <i>geomyces destrucans</i> . //	
9. <b>This is</b>	
10. <b>what the scientists believe are</b> killing the bats.//	
11. <b>They see</b>	
12. that <b>it grows</b> onto the muzzles and wings	
13. and XX <b>waking</b> them up	
14. <b>They are</b> being killed during hibernation	
15. <b>They wake up</b>	
16. and <b>there whole body temperature goes</b> back to normal.	
17. When <b>their body temperature goes</b> back to normal	
18. <b>they want</b> to feed	
19. so <b>they go</b> hunt	
20. but <b>there is</b> no food to hunt for	polarity: no?

SUBJECT/FINITE RESIDUE	NOTES
22. <b>They way it gets on bats is</b> cavers or bat to bat contact	
23. <b>There are</b> ways to prevent this.//	
24. <b>Bats as we know them could be</b> completely wiped out.//	appraisal: completely wiped out
25. <b>The fungi are</b> killing them/	
26. <b>which are</b> making the bat population go down/	
27. and the <b>bug populations go up.</b> //	
28. <b>That also affects</b> your department of agriculture/	tenor move/ your department
29. by <b>crops going</b> down /	
30. because <b>the bugs are</b> feeding on them. //	
31. If <b>we have</b> more bugs from the previous year/	
32. than as time goes on <b>we will</b> run down on resources. //	
33. <b>I know</b> /	
34. <b>bats don't want</b> to die/	appraisal: want to die polarity: don't.
35. and <b>we can</b> prevent that [,] but not just for there benefit but for our economy or our resources.//	
36. <b>Agriculture is</b> going to be the one/	
37. <b>that is</b> hit the hardest/	appraisal: hit the hardest

SUBJECT/FINITE RESIDUE	NOTES
38. because <b>the bats save</b> 3 billion dollars a year for the pest exterminators. //	
39. <b>That is</b> /	
40. why <b>you need</b> to help by funding or donating money to researchers to help prevent/	
41. <b>you losing</b> money/	
42. and so <b>they don't have</b> to suffer anymore.//	
43. <b>This is</b> what your job is for/	
44. and plus <b>you owe</b> the bats for saving you 3 billion dollars a year. //	appraisal: plus
45. <b>I hope</b> now /	
46. <b>you can see</b> how important /	
47. <b>this issue</b> really <b>is</b> .	

## Genre Analysis

Text	Potential name/stage	Discussion
Dear Secretary of Agriculture Thomas Vilsack,	Salutation	Focused instruction on discourse of letter writing. Evident.
PURPOSE: The purpose of this letter is to inform you that White Nose Syndrome (WNS) is not only affecting the bat population but also affecting agriculture immensely.	Purpose	
To begin with White Nose Syndrome is a disease that is killing bats at a rapid pace. The only evidence that scientist found so far is a <i>Fungus</i> called <i>geomyces destrucans</i> . This is what the scientists believe are killing the bats. They see that it grows onto the muzzles and wings and waking them up. They are being killed during hibernation. They wake up and there whole body temperature goes back to normal. When their body temperature goes back to normal they want to feed so they go to hunt, but there is no food to hunt for. The way it gets on bats is cavers or bat to bat contact. There are ways to prevent this.	Explanation [of WNS]  Explanation [of fungus]  Result of WNS	
Bats as we know them could be completely wiped out. The fungi are killing them which are making the bat population go down and the bug populations go up. That also affects your department of agriculture by crops going own because the bugs are feeding on them. If we have more bugs from the previous year than as time goes on we will run down on resources. I know bats don't want to die and we can prevent that but not just for there benefit but for our economy or our resources.	Result  Tie in to author's connection to problem	
Agriculture is going to be the one that is hit the hardest because the bats save 3 billion dollars a year for the pest exterminators. That is why you need to help by funding or donating money to researchers to help prevent you losing money and so they don't have to suffer anymore. This is what you job is for and plus you owe the bats for saving you 3 billion dollars a year.	Result  Call to action	
omitted	Solution	

I hope now you can see how important this issue really is. Thank you for your time.	Final/summative	
Sincerely,  Kia	Closing,  Signature	

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